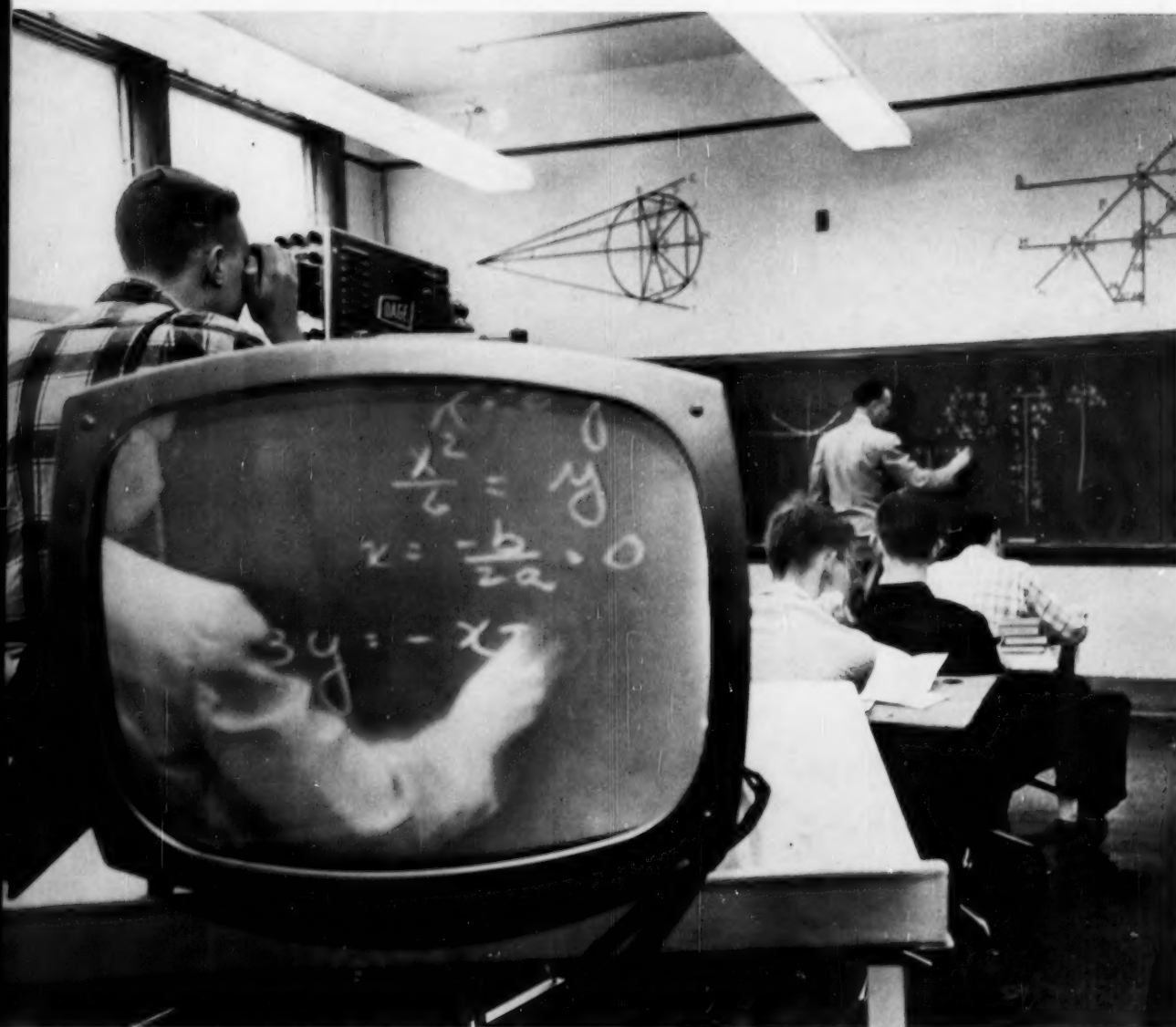


JULY
1956

The School Executive



CLOSED-CIRCUIT TELEVISION—a report on how it works,
what it costs and where it's been tried (page 63)

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The School Executive

JULY 1956

VOLUME 75 NUMBER 11

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COVER Schenectady, New York, high school math instruction is relayed to other classes by closed-circuit TV (Schenectady Gazette photo).

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Photographer: Dearborn-Massar

Because of its very pleasant flood of light, Coolite Wire Glass, skylighting the Normandy Park Elementary School corridor in Seattle, Washington, has excited more comment than any other space in the school, relate Waldron and Dietz, Architects. This cheery glow of softened, diffused daylight is borrowed by adjoining rooms providing extremely high levels of glare-free, natural illumination. The glass creates an open, airy atmosphere and appears as clear, blue sky even on overcast days. The same Coolite Wire Glass is used in the multipurpose room. Mr. Waldron reports that "it has proven entirely satisfactory for elementary school use... direct light of this variety is desirable because it is pleasant and cheerful."

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The School Executive

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Preview of August

There are many items in the August issue of *The School Executive* which you will find interesting and important. Belmont Farley, NEA Director of Public Relations and Washington cor-respondent for this magazine, uses the Green Sheet to describe the struggle which has gone on in the Congress for enactment of the School Construction Act. Every reader will want to look at this straightforward account.

The Planning Section takes a look at a number of features frequently found in new school buildings. Five outstanding people in the school plant field have prepared informative materials on such plant topics as form and structure, atmo-sphere, equipment, costs and sites.

In the Schools in Action section, Russell Gregg presents his views on what the public expects from its superintendent of schools — this is a particularly stimulating piece. Walter Eells discusses junior colleges in California. Other articles describe functional school landscaping, internships and how to motivate science students. Also, two University of Virginia faculty mem-bers tell of Virginia's dilemma over the desegregation issue.

You will agree, I think, that the August issue has real meat in it.

Sincerely,

Walter D. Cocking, editor

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A triumph of modern school design is the new Chambersburg (Pennsylvania) Area Senior High School planned by architects Ritchie Lawrie, Jr. and M. Edwin Green.

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AS I SEE IT

by Helen S. Locking

Let's Use the School Grounds

RECOGNITION OF THE OUTDOORS as a part of the educational environment is slowly coming about. We have been so accustomed to linking the learning process with the classroom that it is difficult for many of us to understand that school activity can take place elsewhere. And yet it is apparent that, for many kinds of activities, the outdoors provides an excellent learning setting and the almost perfect laboratory.

One big step forward has been taken, however. School sites as a general rule are now large and commodious. Most communities provide 10 acres or more for their elementary schools, and more than 30 acres for their secondary schools. As a result, space is available for outdoor education if we can find the ingenuity and courage to put it to use.

We find many illustrations of such use here and there all over America. A community in Pennsylvania has set aside 5 acres on a new elementary school site for what is called a nature sanctuary. In this natural science laboratory, teachers and pupils can study birds and flowers, soil and grass, trees and their foliage, rocks and waterfalls and the effects of sun and rain, cold and warmth—all at first hand. How superior such a setting is to any indoor place.

A number of communities have provided outdoor theaters. As one who several years ago had the privilege of using such a space, I can testify to its utility, flexibility and general excellence for a variety of activities involving many participants. I can still recall the atmosphere which such a setting created. Many activities, impossible to stage indoors, were readily and effectively carried out.

I AM SURE that the outdoors has intrinsic values for all of us. Such a setting brings out our best qualities. In the constant discussions on how schools can best teach moral and spiritual values, not enough attention has been given to the influence of the environmental setting of the school.

People of all ages like to commune with nature. School grounds should provide delectable spots for such a pur-

pose. In many new public and private buildings, a space has been provided earmarked as a "quiet room" or "meditation space." I am sure these fill a real need, but how much better to have such a space outdoors.

Little children and older people, and all those in between, seem to find satisfactions in just being alone with nature. Let's provide appropriate spaces on our school grounds for such purposes. Greensward, a few shady trees and shrubs, a bench or two in a secluded spot—just these would provide the necessary setting for communion with nature and with one's own soul. It doesn't cost a lot of money; it does require a little vision, some planning and an understanding of people's dependence on nature.

THEN, OF COURSE, there is the use of grounds for recreational purposes. The outdoors is the ideal place for most kinds of physical activity. The school grounds, then, should provide space for such sports as tennis, baseball, football, volleyball, basketball, etc. But they should also provide opportunity for casual activities—walking, sitting, small games, etc.

It is interesting to note that a number of communities are providing play sheds on their school grounds. These sheds, in effect simply roofs supported on standards, permit outdoor activity even in inclement weather. They are being put to other uses, too, as further experience is gained.

There are, of course, many other uses for school grounds. Portions of them may be used for flowers and other plantings, for gardens and experimental plots and, finally, for automobile parking. The latter is increasingly important. Experience seems to teach us that a community is well advised to set aside several areas rather than one large area for parking. In any case, a considerable amount of space is required, and even then parking space is sometimes at a premium.

As I see it, then, these are some of the important uses for school grounds. It is evident that a school which uses the outdoors wisely needs a very considerable amount of land to carry out its program effectively.



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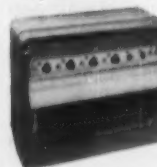
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by GPL in its professional equipment go into *ii-TV*. Why not find out how this important new communications tool can help solve some of the school problems you are facing? Just drop a line to:



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KEYNOTES

comments on the educational scene

Beware of "low cost" school plants!

GREAT NEED ALWAYS brings with it various suggestions and proposals of ways to satisfy it. Considerable wisdom must be used to distinguish whether the proposals are based on a sincere endeavor to find the best possible answer for the problem, or are suggested to promote and further the selfish interests of those who originate them.

The present tremendous need for more and more educational buildings and the difficult, in some instances almost impossible, job of financing the undertaking, presents a situation which has brought many suggestions. Some proposals seem to have merit and have been presented with the intention of helping to meet the need constructively. Others must be viewed with suspicion and require careful scrutiny. In all cases, analysis is required to determine if the proposal really helps to provide America with the school buildings it needs and which it can afford financially.

Anything good costs money. You can't get something for nothing. These truths were never so apparent as when applied to the present building situation. Good school buildings cost money, lots of it, more than many school districts can raise under present taxing regulations. Proposals which suggest that school buildings can be purchased at low cost, just do not hold up under scrutiny. Furthermore, many officials become confused. Out of their extreme need, they become susceptible to proposals which promise solutions to their problems.

Let's face it! There is no easy way to finance good school buildings. Schemes which suggest otherwise result in cheap and inadequate facilities. Our children and their children are the inevitable victims. It always has been true and always will be that we get what we pay for.

Edwin W. Broome

WITH THE DEATH of Superintendent Edwin W. Broome of Montgomery County, Maryland, the nation lost a great citizen. Schools lost a great leader. Children lost a real friend.

Probably the two greatest factors in Dr. Broome's success were his ability to dream, and his ability to make so many dreams come true. A tireless and courageous worker, he never faltered. His career was a ceaseless struggle to build a better America through public education.

TV as an educational medium

THE PLANNING SECTION in this issue of THE SCHOOL EXECUTIVE is devoted to a consideration of closed circuit television as a practical medium for use by schools and colleges (see page 63). The facts presented and the views expressed should lead educators to consider the

place of TV in the educational picture.

All of us need to understand this medium of communication, which most of us do not. Before proposals are accepted or rejected, the mechanics of television must be studied in terms of school use. In and through all the study and planning which is done, clear vision is needed which foresees how TV can not only aid the present educational process but can open avenues still unexplored.

Can you beat statistics?

ONE OUT OF seven people now live to age 65, and life expectancy at 65 is still another fourteen years. Of these seven people, six are dependent at 65 upon someone else and only one is independent; only one in 500 is able to accumulate as much as \$25,000 by age 60. Is that one independent person a teacher? Is that one in 500 by any chance a teacher?

If teachers are as improvident as some would have us think, they are likely to be numbered among the six. If teachers are improvident, it is possible that there are some people in every community who look upon them as financial assets if their salaries are spent locally. Teachers just aren't expected to save or invest money, and if they do, the reaction is likely to be that they should leave teaching.

For 25 years as a superintendent, I have been proud of the salary increases I have helped obtain for the teachers with whom I have worked. As their salaries have increased, teachers have been able to buy new automobiles, refrigerators and other modern conveniences but they have not been able, generally speaking, to make investments of any appreciable worth.

IRVIN P. MURPHY

*Director of Secondary Education
New Mexico Department of Education
Santa Fe*

Beyond high school—what?

PRESIDENT EISENHOWER HAS appointed a Committee of distinguished laymen and educators to study and report findings and recommendations on all phases of education beyond high school.

Devereux C. Josephs, chairman of the board of the New York Life Insurance Company, is chairman of the Committee, and David D. Henry, president of the University of Illinois, is vice-chairman.

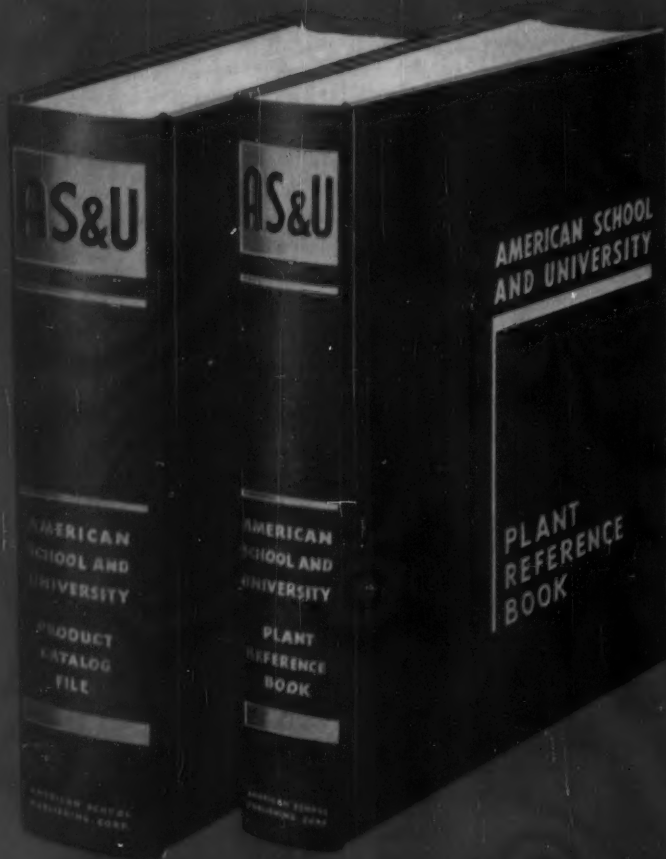
The Committee has a most important task. It undoubtedly will devote major attention to higher education and to adult education. The findings and recommendations of the Committee should play an important role in determining future policies on these topics. The American people will await its report eagerly.

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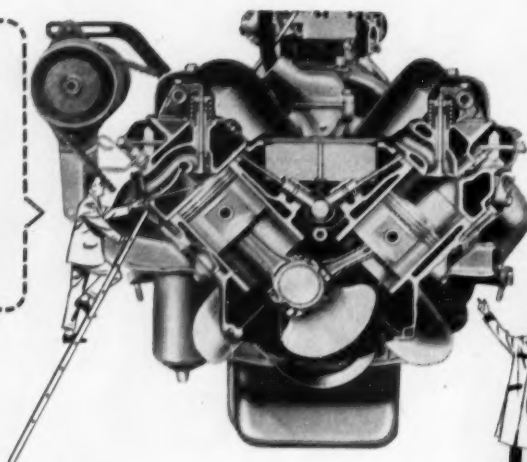
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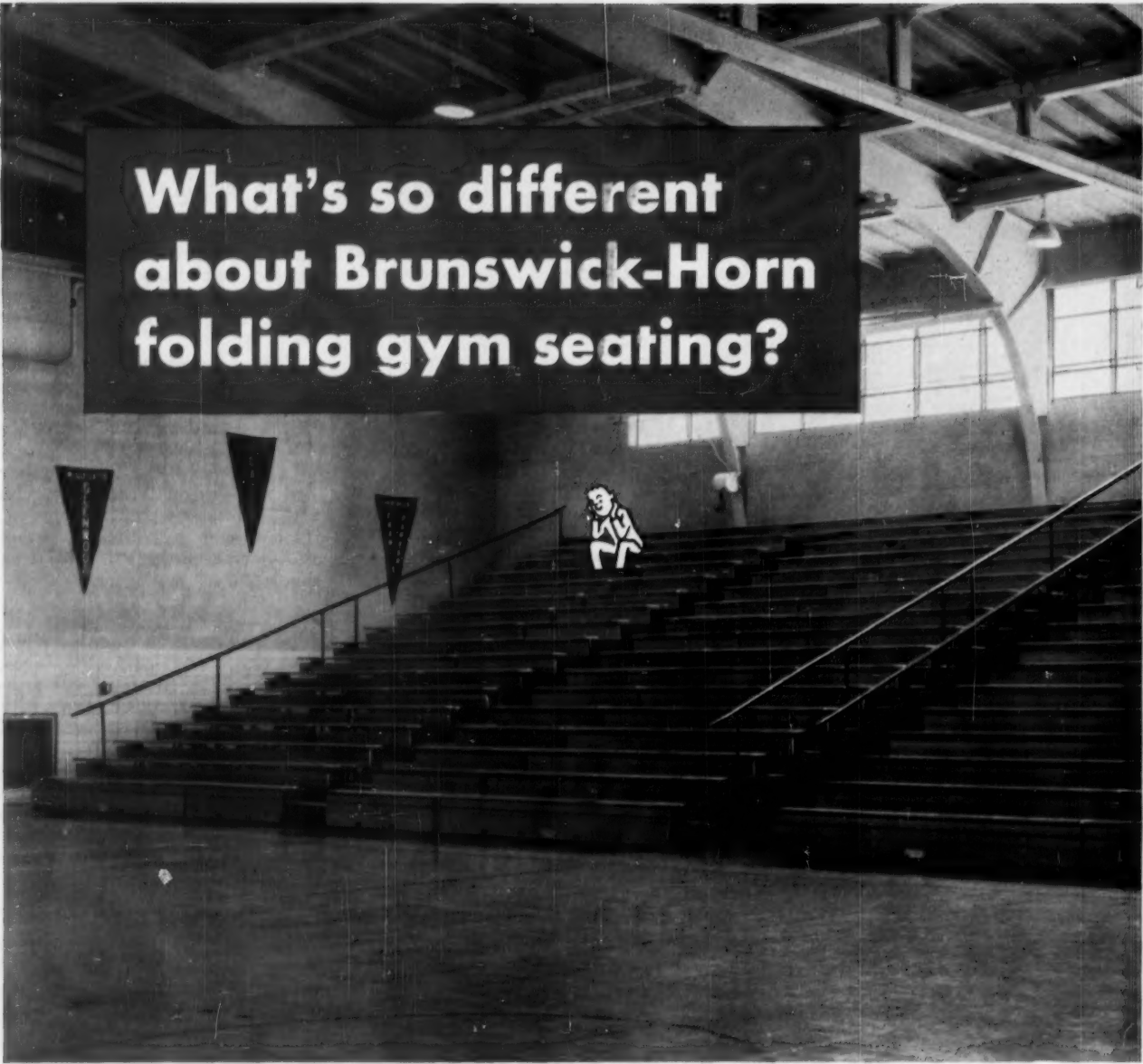
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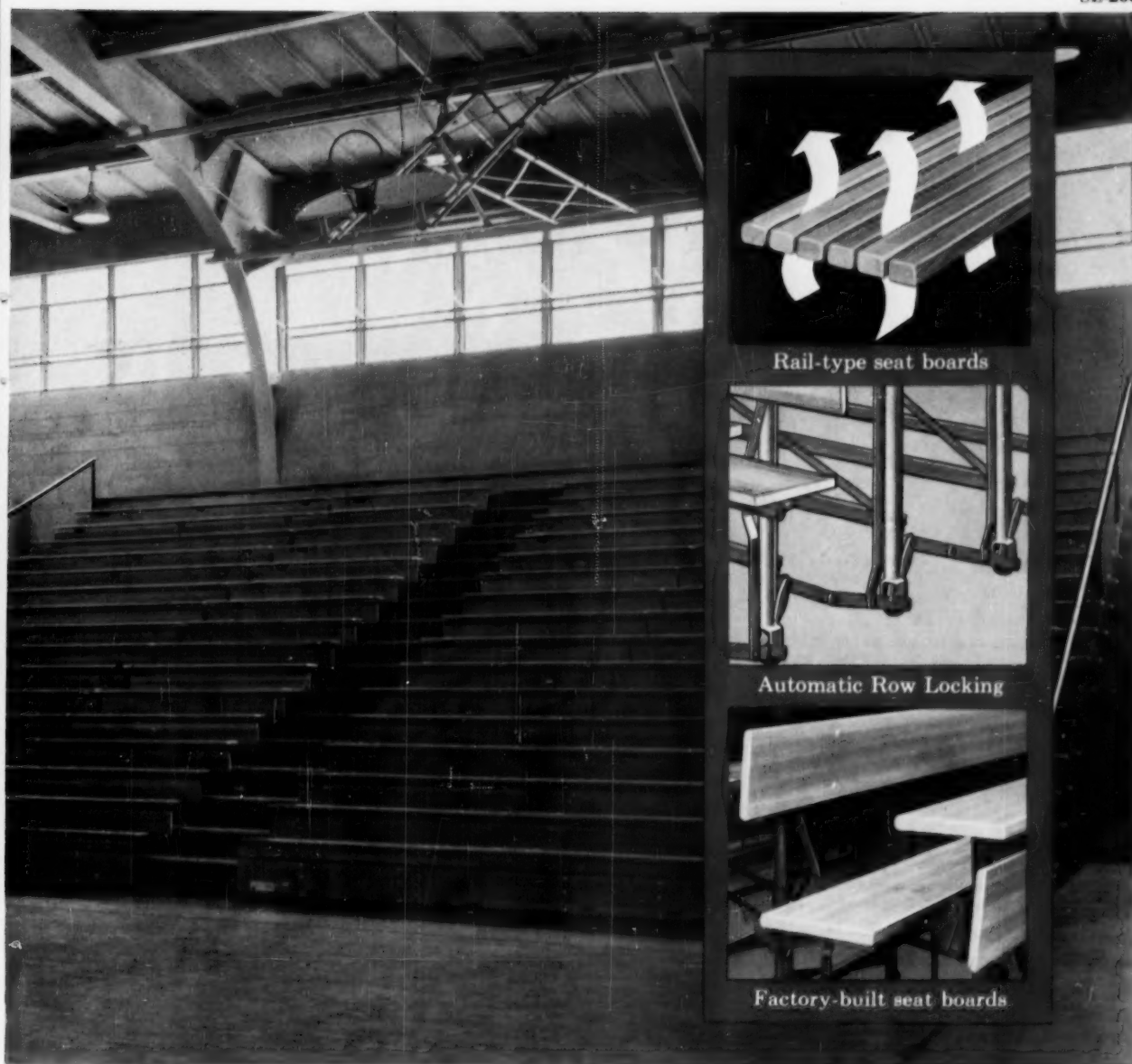
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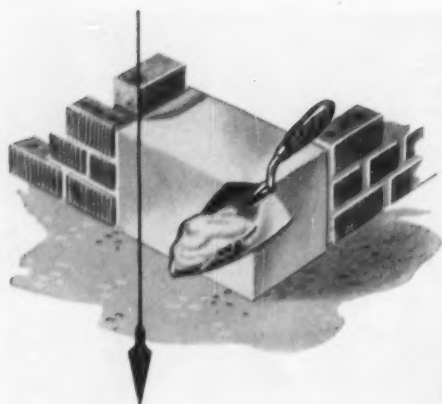
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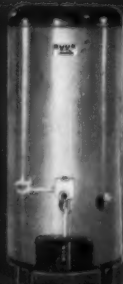
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1



2



3

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OUR SCHOOLS

what the citizen wants to know about education

When John Q. Public becomes sufficiently informed and interested in the issues facing his schools, he'll come through. He always does.

Winning Public Assistance For the Public Schools

by CLINT PACE

Former Director

White House Conference on Education*

DURING THE PAST year and a half, millions of words have been written, and countless millions more spoken, about public education in this country. These have appeared in all media of communication—newspapers, magazines, books, radio, television—as well as in brochures, handbills and advertisements.

Then, there were the 4,000 community conferences and 53 state and territorial conferences on education, which preceded the President's White House Conference on Education last November. At that national meeting alone, 1,838 participants, selected in the states and territories and from 300 national organizations, spent three rigorous days in discussing national school needs. One person would have had to talk continuously for more than two years—never stopping—to equal the wordage on the subject of education expended at the White House meeting.

This is all to the good. For, in a democracy, where public education requires public support, it must first have public understanding. This understanding comes about, as it does with most things in a democracy, when people become so concerned with their common problems that they are willing to talk over their solutions and air their own points of view.

And so, these discussions, and the torrent of words on education which flows between individuals and through the media of publication, are excellent. It would be foolish, however, to think they are enough. The proof of worthwhile talk is what comes after it. Thus, as the President's Committee for the White House Conference on

Education felt at all times during its program, the real success of the Conference program lay not in whether people came together—although that was a prerequisite—but in what they did after the talking was done. One purpose of the White House Conference was to provide a *method* by which citizens could join with their boards of education and their school professionals and discuss, in cool and calm manner, the problems and questions related to American public education. The approach to each subject implied four questions, and they are the same questions which every community should also ask itself in trying to work out solutions to school needs:

- Where are we?
- How did we get here?
- Where do we want to go?
- How do we get there?

In other words, what *is* our school situation on, let us say, school finance? How did it get this way—what caused it? What would we like it to be? How do we make it that way?

In the answers to these questions lies the answer to meeting school needs wherever they exist. And, finding the answers to these questions, community by community and state by state, is the only way to meet whatever school needs exist now or will arise in the future.

Every community in the country must face up to these, and relate them to the six substantive questions studied at the White House Conference, including additional subjects, of local pertinence, like higher education and continuing education. It is here that the establishment of topic order is important, for how can people discuss the amount of money needed for a school operation until they decide, for example, what the money is intended to buy?

The six basic topics follow. I have added some questions and statements after each to show the

*Mr. Pace is executive assistant to the President of the Houston, Texas, Post.

reason for its place in the order.

1. *What should our schools accomplish?* What, in other words, do we want our schools in our community or in our state, to do? What do we reasonably expect from education, and what part of the education of a child is the obligation of the school system alone?

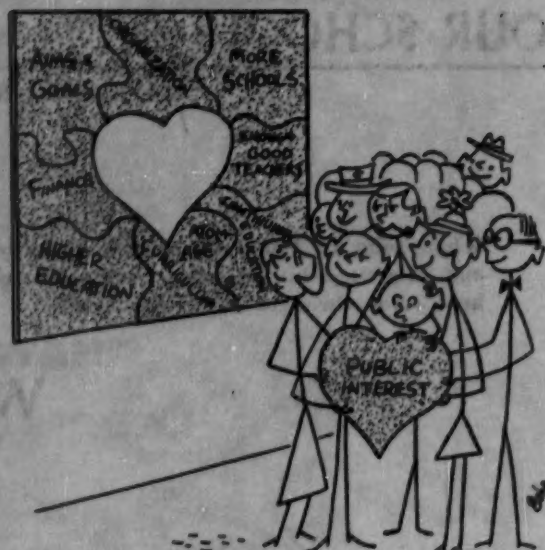
2. *In what ways can we organize our schools more efficiently and economically?* Knowing what we expect our schools to do for us, what kind of organization is required for them to do it? What kind of state department of education? What kind of school board organization? What should the Federal Government do or not do? What kind of district organization is needed and is possible for us to have?

3. *What are our building needs?* Knowing what we expect our schools to do, the kind of organization necessary for it, what then is our building picture? If our schools are to provide certain types of technical training in addition to college preparatory courses, what kind of classroom facilities are required? If we can tighten up our school district organization through consolidation (or, in the larger cities, de-consolidation), will our building picture change?

4. *How can we get enough good teachers—and keep them?* Knowing what we expect of our schools, organized to put them to the most effective use, and knowing the number of classrooms to be staffed, how many teachers of various kinds will be required? How do we get them? Where do they come from? Is the supply sufficient, and if not, what causes it to fall short? What can we do about it? Once they agree to teach, how can we keep good teachers, halting the enormous turnover which now is a conspicuous waste of trained manpower?

5. *How can we finance our schools—build and operate them?* What does it all cost? And where should the money come from? If we are to obtain from our schools what we want, what will be the size of the bill and how should it be paid? What would a better school organization do to costs? How would it affect money needed for buildings and for school operation? What is a good school worth in our community? What do our state laws do or fail to do toward raising funds? How much if any, should be paid by the Federal Government, the state, the community? Is the tax rate fair, and are assessments reasonable and fair to property owners? What is needed to bring about any changes that ought to be made?

6. *How can we obtain a continuing public interest in education?* Knowing all of the above, how do we go about getting it? How much of the school need is really understood by the people who own the school system—the general public? What is available to make them know more, and to under-



The heart of the matter.

stand their own educational difficulties?

All of these topics are, of great importance individually but also taken together. They are each part of the other and cannot be separated without loss of part of the whole. To them, of course, should be added subjects of local or statewide interest, such as adult education and higher education. Whatever the subjects are, however, any discussion of school needs should be carried out with the whole program in mind, and not just part of it.

The most important issue now facing education is not school goals, or organization, or buildings, teachers, or money—important as each obviously is. It is the creation and maintenance of a strong public interest in schools. Given this, the other needs will be met. But they cannot be met sufficiently or in time if the people who own the educational system are apathetic to its needs and its future.

This is why the sixth topic above—How can we obtain a continuing public interest in education?—is the most important of the major issues and questions in elementary and secondary schools. Without public interest, schools cannot help but falter, as a child falters if his parents are uninterested in his progress and his future. It is in the creation of a strong public interest in education that all of us, educator or noneducator, have a definite responsibility.

Much can be done to bring to public attention the needs of schools, in order that they can be hashed out over backyard fences, at school meetings, in press and community and state conferences which are following up the White House Conference. The newspapers and radio and television stations of this country are eager to help, because

to them schools are news as they have seldom been news before. There was no doubt of this when 440 reporters signed in to cover the White House Conference. This was far and away the largest number of press representatives ever to attend a school meeting, and their interest in what is going on in education continues daily.

Every community should hold, as soon as possible, a conference or series of conferences to discuss the six topics and any others of importance to the educational future of that community. Much help is available from many sources. One of these is the National Citizens Council for Better Schools, a non-profit organization dedicated to awakening citizens to school needs and helping them to help meet these as they see them. The Council, located at 9 East 40 Street, New York City, has a wealth of information on how to go about holding discussions and conferences, which it will furnish on request. In addition, many national and local organizations, such as the National School Boards Association at 405 East Ohio Street, Chicago, have increasingly active programs in building public awareness of school needs and in furnishing factual information on the cause of school difficulties. They can give much assistance and are anxious to do so.

One word of warning to those planning con-

ferences: Don't expect *everybody* to be happy with the outcome. One of the factors of high public interest in public education is that people see things differently and are willing to express themselves. This is as it should be, for without it democracy would become little more than a mould. Most people, however, will come to agreement on what the needs are and will, if given a chance, act to meet them. What they need is not ready-made answers, for there are none anyway. What they need is the opportunity—and sometimes the encouragement—to sit down and reason together.

Whatever answers may evolve from the public's interest in education, the legal responsibility for deciding school issues rests with the school board. This is the legally constituted body of authority; the rest of us are advisors whose help can mean much in meeting our school problems.

School superintendents, school boards and teachers have many opportunities to spell out the local school situation with laymen. They ought to do so frankly and openly, for they are, after all, talking over a business with the people who own it. The day is passing when school people could spend 50 weeks a year saying all is well and the last two weeks (before the bond election) describing how terrible things are and how badly money is needed.

Teachers' Salaries and the Cost of Living

by HAROLD F. CLARK

Economic Analyst,
Teachers College, Columbia University

THE REAL WAGES of teachers declined during the month of May. The index of real wages in May was 139.9. In April it was 140.0.

The cost of living continues to rise, slowly but steadily. For many months the rise was partially covered up by a decline in the price of food. Seemingly, that decline has stopped. Non-food items, as a whole, have been advancing for many months.

The basic cause of the rise in prices is that wages are advancing faster than efficiency in many occupations. This inevitably forces price increases in those fields. The only possible way to meet this as far as the teachers are concerned is to face the prospect of increasing teachers' salaries every year.

What has happened in regard to wages in the steel industry is a good illustration of this problem. Wages per hour in the steel industry have risen an average of 8 percent a year compounded, from 1940 to 1955. This, of course, is a fabulous

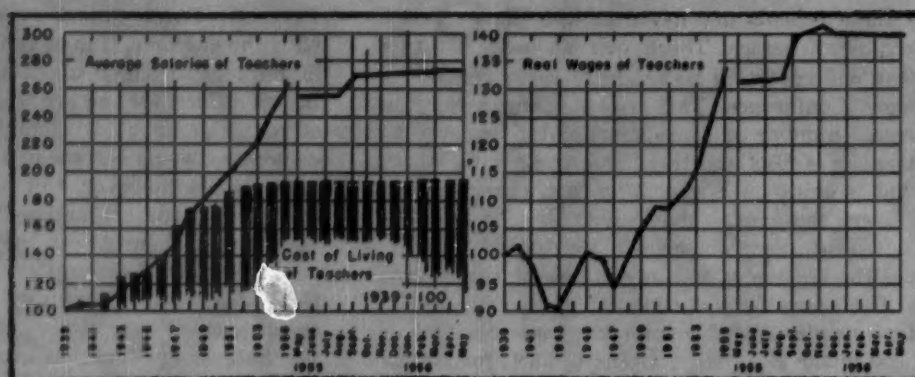
increase in wages. Needless to say, no such increase in efficiency has been possible. The only alternative has been to raise the price of steel time after time, and this is exactly what has happened.

Certainly, no one objects to the continual rise in the level of wages in the steel industry. If, however, the increase in wages moves faster than the increase in efficiency of the industry, the price of steel products must rise. This creates a problem for other occupations. Shall they, also, go ahead and ask for increases above the rise in efficiency?

The question arises whether the increase could come out of the large profits of industry. This might be possible for one year, possibly even for two years. But, then there would be nothing left to buy new machinery and increase efficiency, and there would be no more rises after that. Certainly, few people would want an increase for one or two years, and then no more.

The only other alternative available is for some occupations to get so well organized and powerful that they can get their increases faster than other occupations. This, of course, will enable them to raise their standard of living at the expense of

Real wages of teachers declined during May to 139.9. In April, it was 140.0. Teachers' salaries are still below other wages in the national economic picture.



the other workers. This is exactly what has happened in regard to teachers. The net result has been a relative decline of the real income of teachers as compared with many other occupations. This is a root cause of the teacher shortage.

The rise in teachers' wages will have to keep up with the average increase in all other wages, or inevitably it is going to become increasingly difficult to recruit teachers. With all other things as they are likely to be for the period immediately ahead, the only practical procedure would seem to be to assert every effort possible to try to increase teachers' salaries as rapidly as the average of other occupations. This, of course, has not been possible during the past seventeen years. Unless someone can come up with more successful procedures than those in use, it is difficult to see how it can be done in the near future.

THE PROBLEM of teachers' salaries is complicated by another extraordinarily difficult issue. There is very little agreement as to what constitutes increased efficiency of teaching. In theory, members of an occupation could secure a rapid rise in wages without bringing about inflationary pressure, if they could greatly increase the efficiency of their work. If the steel workers had been able to increase their efficiency 8 percent a year, it would have been possible to raise the steel wages approximately 8 percent without raising the price of steel.

This is assuming, of course, that the increase would not require enormous amounts of capital that would also have to be paid for. As a matter of fact, large increases in efficiency in an occupation probably would require very extensive expansion of capital. The capital obviously would have to be paid for. This would probably reduce the increase in wages somewhat below the in-

crease in efficiency.

If an occupation is not increasing its efficiency, it is extraordinarily difficult to see how you are going to provide an increase in wages unless somebody else pays for it. Clearly, the only way all occupations can get an increase in wages is for all occupations to produce more. In theory, it might be possible for teachers to get rapid increases in wages if they could find some way to greatly increase their efficiency.

For some reason, many teachers seem reluctant to even try to increase their efficiency. Many in education even take the position that it shouldn't even be tampered with. If someone would devise improvements to enable a 10 percent increase in efficiency in teaching each year, then it should be very simple to get a 10 percent increase in wages. If teachers are going to ask for large increases in wages each year, then they should at least be willing to raise every question possible regarding methods of increasing efficiency. Perhaps any increase in efficiency is impossible, but that should not be assumed before further study is made.

In all probability, the invention of printing from movable type enormously increased the efficiency of the teacher. It is certainly reasonable to assume, until proven to the contrary, that radio, television and motion pictures should ultimately provide for much greater efficiency in some aspects of teaching. There is much we can learn on utilizing the talents of parents, other adults in the community and even the children in the school most effectively to aid in the process of instruction. There are literally hundreds of possibilities that should be explored which offer potentialities of increasing the efficiency of teaching. It will be far easier to secure increases if efficiency improves than if it doesn't.

Next Month: Congressional Impasse on School Building Aid—Belmont Farley

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Pamphlets of Interest

Instructional Program

Language Arts, Course of Study Grades 1-6 covers oral and written communication, reading and literature and language activities. Board of Education, City of New York, 110 Livingston St., Brooklyn 1.

General Woodwork Shop is the teacher's work manual for grades 7, 8 and 9. Board of Education, City of New York, 110 Livingston St., Brooklyn 1.

Social Studies for Children contains articles on social studies in the elementary curriculum, in the context of social living and on organizing the social studies program. Association for Childhood Education International, 1200 Fifteenth St., N. W., Washington 5. Price: 75¢.

Building a United States of Europe is a teaching kit for schools, colleges and study groups in international affairs. The Information Office, European Community for Coal and Steel, 220 Southern Building, Washington 5. Price: \$1.00.

The Flannel Board tells how to make and use this teaching tool. Merton B. Osborn, Box 3, Redlands, Calif. Price: \$1.00.

Family Focus in Home Economics Teaching brings this approach to teachers at the secondary school level. American Vocational Association, Inc., 1010 Vermont Ave., N. W., Washington 5.

Syllabus for Psychology of Family Relations is published by the Bureau of Publications, Teachers College, Columbia University, New York 27.

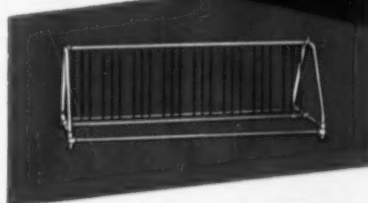
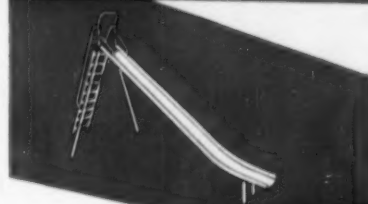
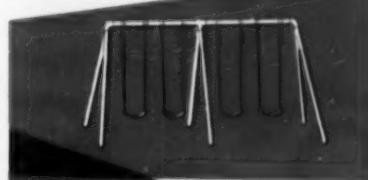
Liberty and the Law explains how "law is the friend of freedom." It is a story of a boy who learns the value of law in our society. Civic Education Center, Tufts University, Medford 55, Mass.

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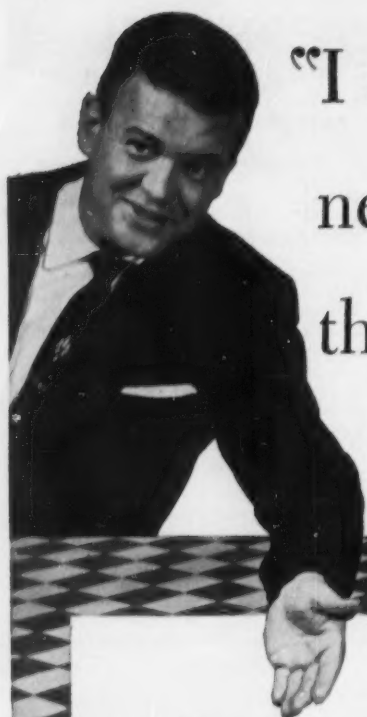
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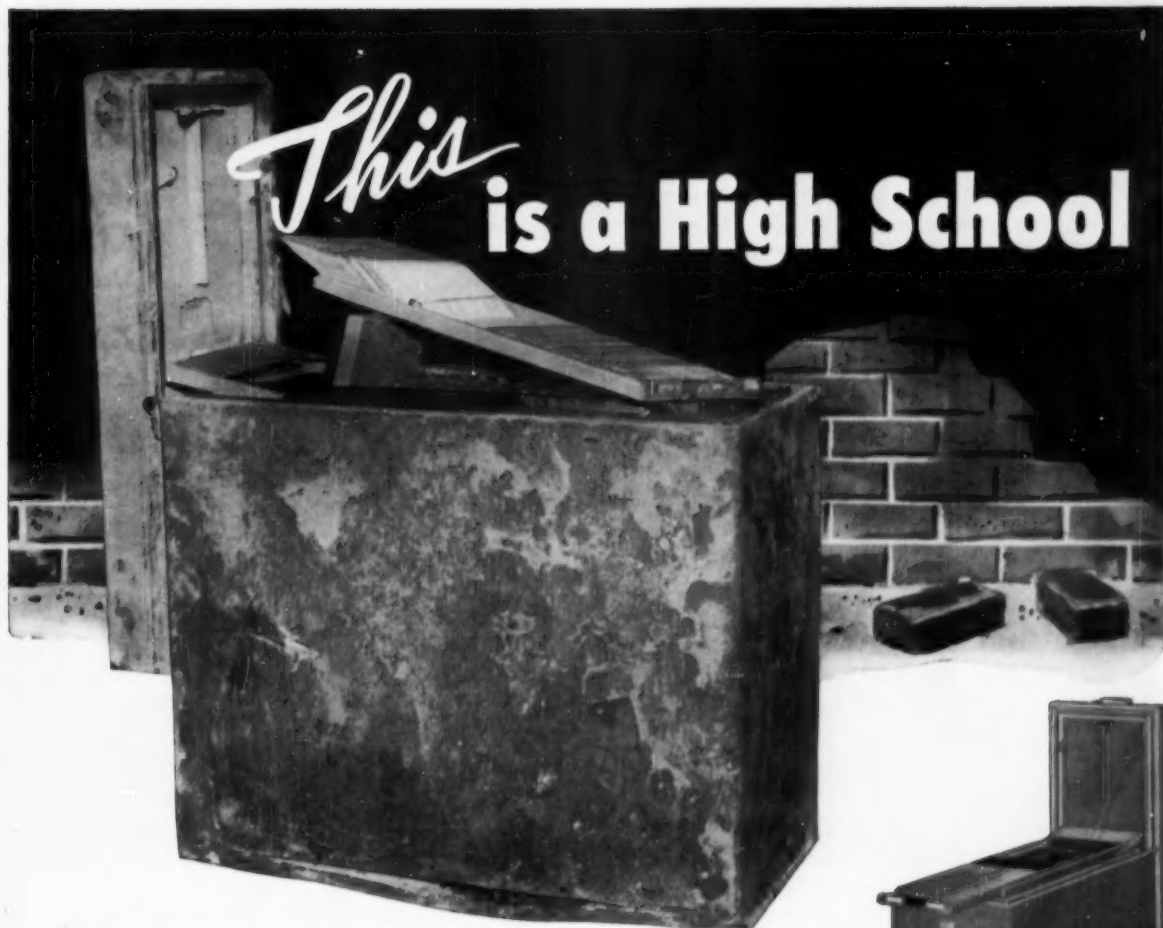
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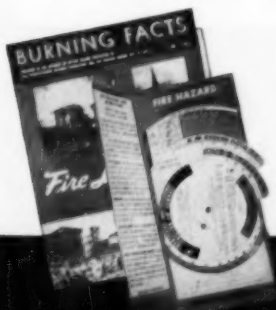
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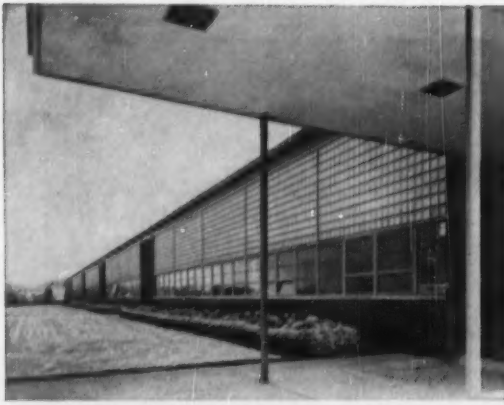
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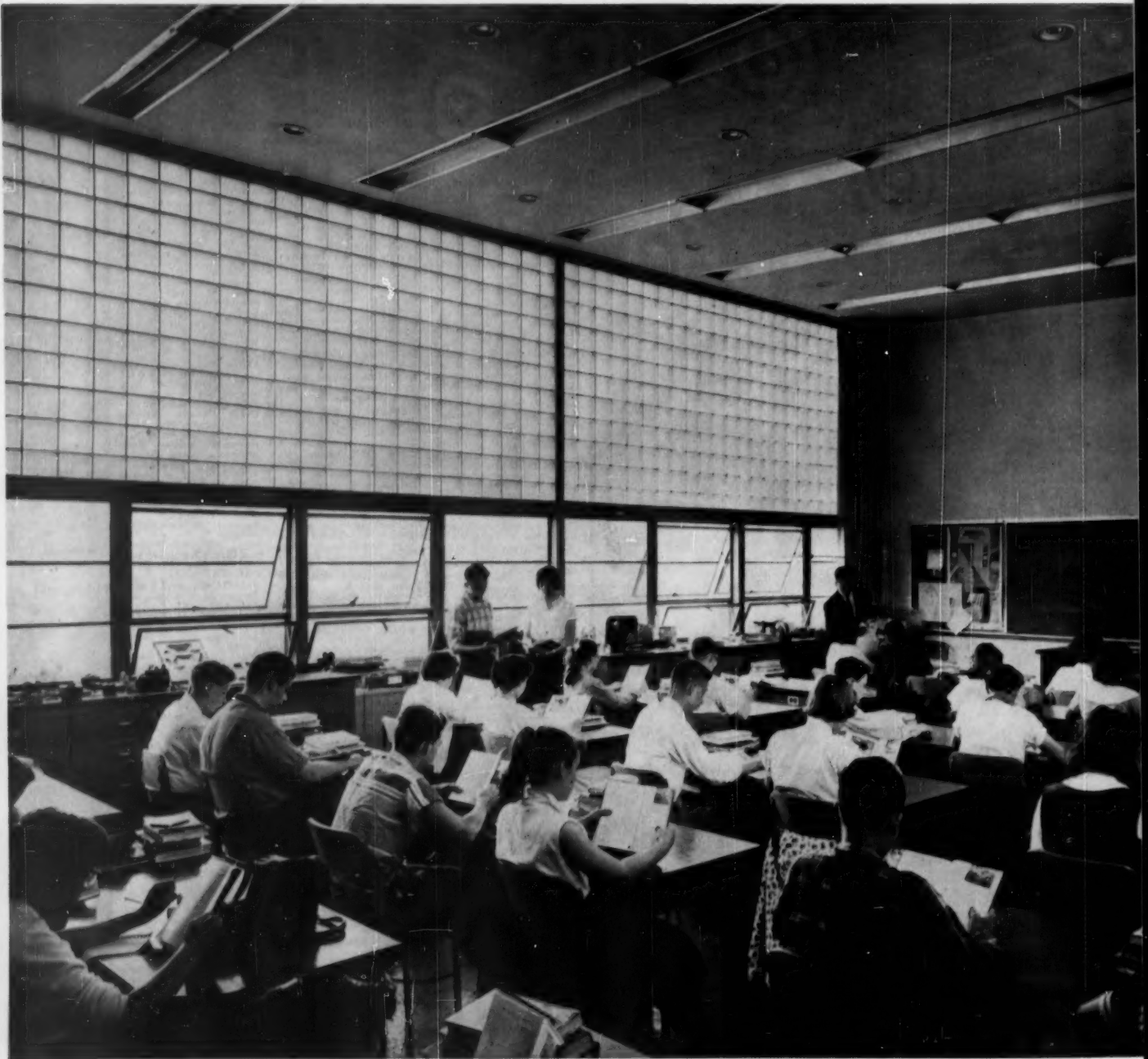
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How PC Glass Blocks program at North



Typical research-reading class at North Allegheny Junior-Senior High School, Allegheny County, Pa. Each class is equipped with its own library. Note uniform distribution of daylight.

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Eight classrooms are designed for visual aid training. Draw drapes cover both glass block panels and vision strip. Pin-point ceiling lights permit note-taking.



Present enrollment totals 1,200 students. School serves the districts of Bradford Woods Borough and Franklin, Marshall, and McCandless Townships.



Cut-away view shows how PC light-directing Glass Blocks "discipline" daylight. Light is refracted by internal prisms and directed upward to the ceiling. From here it is diffused evenly throughout the room.

EARLY in the planning stages, North Allegheny Joint Schools officials recognized two important facts:

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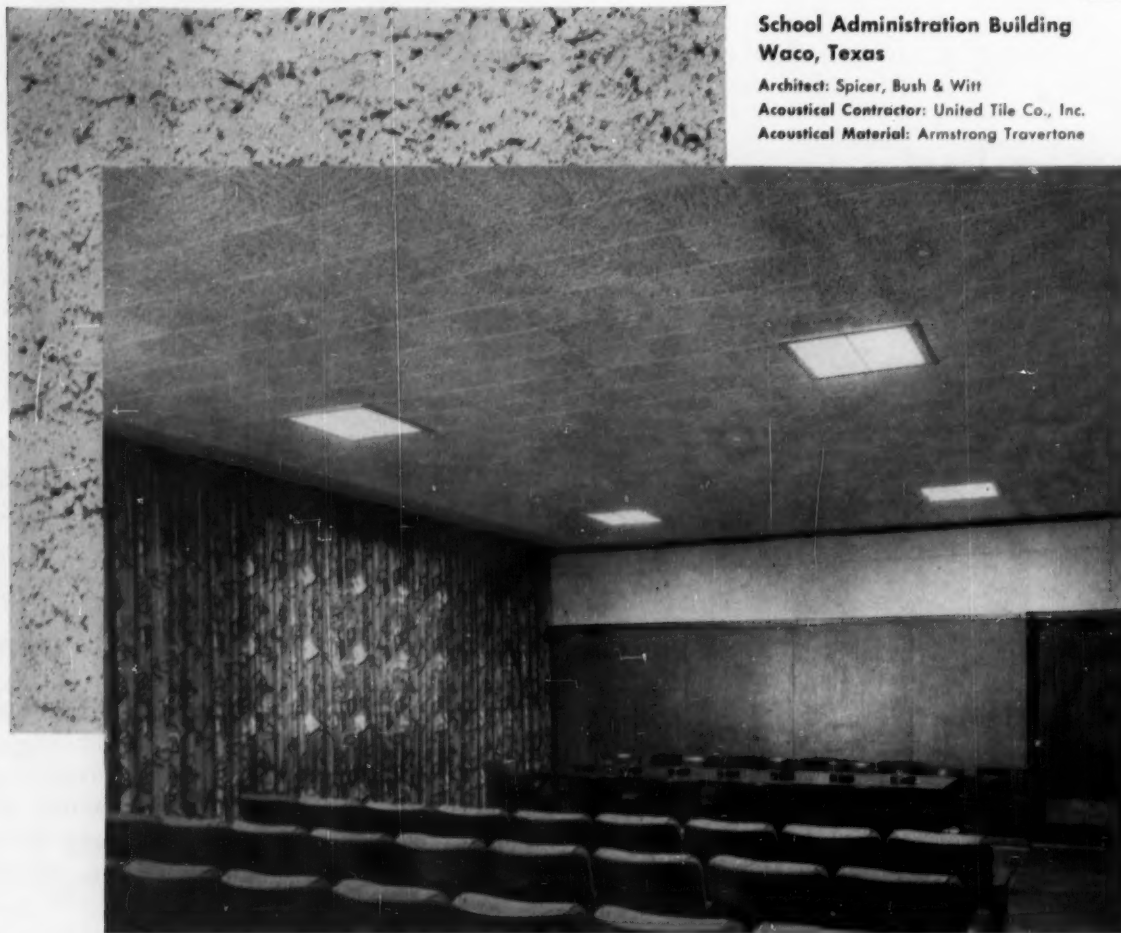


School Administration Building Waco, Texas

Architect: Spicer, Bush & Witt

Acoustical Contractor: United Tile Co., Inc.

Acoustical Material: Armstrong Travertone



Noise-quieting ceiling aids efficiency in school administration building

Centralization of management and educational facilities has increased efficiency for the Waco Independent School District. By bringing its administrative sections under one roof, the district has improved management coordination and centralized records, reproduction, and audio-visual facilities. Key areas of the new School Administration Building, including an auditorium and a school board meeting room, are sound conditioned with ceilings of Armstrong Travertone to provide more comfortable and more efficient working quarters.

Travertone soaks up as much as 80% of the sound that strikes it, preventing noise from interfering with concentration. Its mineral wool composition is completely incombustible, too, which helped the building earn one of the lowest fire insurance rates in the Waco area.

Attractive finish . . . A handsomely textured material, Travertone blends equally well with both traditional and modern furnishings. Its smooth,

white paint finish helps diffuse light evenly, without creating annoying glare.

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White seats look more sanitary — are more sanitary. And now, Olsonite has a white seat that will stay white for a lifetime of normal use and still withstand the abuse of school children. Teenagers or tots — there's almost nothing they can do to damage an Olsonite Shock-Proof Seat.

Made of one material, one color — *all the way through*, Olsonite Shock-Proof Seats withstand 5 times greater impact than ordinary solid one-piece seats, and when installed there is no exposed metal to rust or corrode. Available in black or white, Olsonite Shock-Proof Seats have proven ideal for school installations all across the country. Standardize on Olsonite for all seat replacement. Olsonite has a complete line of school seats, including primary and kindergarten models.

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Originators of the
Solid Plastic Seat

SE-2

Let's Provide Outdoor Seating

Frequently in our hurry to provide school spaces to meet the demands of increasing enrollments, we overlook the small but worthwhile "extras." The following statement by William A. Quinn, director of economics for the Flint, Michigan, Public Schools, highlights one such consideration. His suggestion is indicative of the attitude in school planning which can create in educational plants an enjoyable environment for young people:

The other day I had the pleasure of driving through the campus of a well-known university. Several attractive ponds dotted the area and I was told that these were popular ice-skating spots during the winter months and favorite gathering places for young people on warm days.

There was not a bench in sight! Where could these young people sit down to rest and visit or put on their ice skates?

The incident recalled to my mind the many college campuses I have visited. Frequently they have beautiful rolling grounds that include streams, gardens and wooded areas. Yet, seldom do they have an occasional bench where students can

sit down and chat or even study if they so desire.

The same situation is true for public school sites. There are times when children and adolescents love to gather outdoors in small groups. But how many school sites provide outdoor seating for this type of informal learning experience? Too few are to be found on the many beautiful school grounds.

We have noted the recent emphasis on outdoor education—in Nature's great learning laboratory. In this setting there is value in things seen and done rather than read about; there is importance in nature and conservation study. But in connection with this new emphasis, have you seen articles dealing with the provision for outdoor seating to assist this learning?

I believe that educational planners are overlooking an important aspect of formal and informal outdoor learning opportunities by failing to provide adequate outdoor seating.

Finish that Floor

What is the best way to finish hard maple flooring? After checking and observing the performance of approved maple floor finishes, the

Maple Flooring Manufacturers Assoc. has come up with a list of requirements.

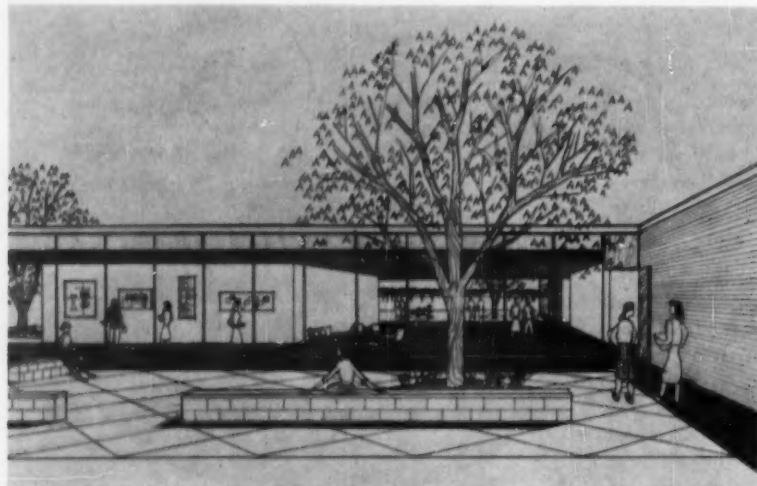
The finish, they recommend, must penetrate the top surface of the wood and seal its pores so as to keep out dirt and resist oil stains; it must not darken wood with its penetrating qualities but reflect light so as to improve illumination; it should be non-slippery and not mar, scratch or flake off; it must be of such quality that worn spots can be re-touched without complete refinishing; it must insure economical maintenance by eliminating the need for constant resanding and complete refinishing, and it should, in the case of sealer, be resistant to water.

Low-Budget Building

Spurred on by the restrictions of limited borrowing power and a steadily rising tax rate, the Penns Grove, New Jersey, school district recently completed a 17-classroom elementary school at a reported record low cost for classroom construction in the state. Among the cost-reducing features cited were the long-span, prefabricated steel roof deck, special concrete blocks which were treated with plaster paint on the interior walls and the elimination of imposing columns and ornate ceilings.

Report on Maintenance

The latest practices in school maintenance are described in a symposium in the forthcoming issue (Volume 23) of *The American School and University*. The materials, authored by six men in the school maintenance field, describe the following operations: efficient plant operation and maintenance, training and supervision of custodians, reducing playground accidents, a training program for custodians, restoring and maintaining school furniture, and operation of a floor maintenance crew.



Benches are provided in outdoor courts of new Riverview Gardens High School, Bellefontaine Neighbors, Mo. (Hellmuth, Obata & Kassabaum, Inc., architects).

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operates by itself
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AUTOMATIC HYDRAULIC ACTION!

The custodian's dream! Just unlatch table... this new specially-engineered hydraulic cylinder controls unfolding automatically. One man can set up an entire lunchroom in minutes... no wasted effort.

Here are just a few of the bonus features you get with the '56 Erickson... automatic hydraulic action... tough, colorful plastic benches and tops... rugged steel under-structure... extreme portability... minimum storage.

GENTLY! QUIETLY! QUICKLY!

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Wheel it anywhere... unlatch it... within 2 seconds you have seating-for-eating for 24 students. You can rapidly convert any available area... such as gym, multipurpose room or corridor... into a comfortable, orderly, colorful lunchroom... with an absolute minimum of time and labor.

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J-M Terraflex vinyl asbestos tile, available in 17 attractive marbled colors, is the ideal flooring for restaurants, public areas, schools, hospitals ... wherever reliable floor service, long-wearing beauty and maintenance economy must be combined.

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See "MEET THE PRESS" on NBC-TV, sponsored on alternate Sundays by Johns-Manville

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Terraflex comes in 17 marbled colors that go all the way through the tile—won't wear off or wash out.



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American Seating offers the most complete line

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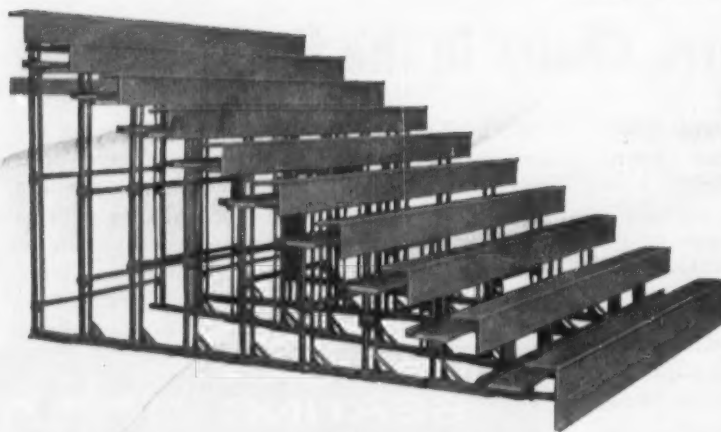
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They're Better Looking! Beautiful, durable clear finish over natural wood improves appearance of any gym.

A Schenectady senior high school launches a competent child project which uses curriculum enrichment and acceleration to develop the potential of its gifted



A High School Program for Gifted Students

by FRANCIS E. MORHOUS
and ELIZABETH SHERLEY

FOR THE MANY material benefits enjoyed by this country's population of 160 million we are indebted to a few—those designers, creators and leaders in every area, from engineering to foreign problems. These few comprise the "gifted" segment of our population which is as valuable to this nation as any natural resource.

Recognizing our obligation to contribute to this human resource pool, we at Mont Pleasant High School in Schenectady have launched what we call our competent child project. Through this program we seek to identify the gifted youngster whose unusual abilities, eagerness to learn, initiative and originality distinguish him as a future leader—be he a scientist, diplomat, businessman or educator—and provide him with an enriched and accelerated curriculum that will develop his potential.

Mont Pleasant is a typical senior high school with 1300 students and a sound core of experienced and interested teachers, and it is bound by the usual limitations of budget and curriculum. It is located in an in-

dustrial city—the home of the General Electric Company.

The city has a progressive school administration which began four years ago, in the elementary division, the process of identifying the gifted child. It has several alert community groups that have studied the problems of initiating programs for gifted youngsters. Our competent child project was worked out in conferences between school staff members and two of these local citizen groups.

Our approach to the project was tentative. Extensive research had disclosed accepted basic means of identification, the level at which identification should be made and the characteristics of gifted children. But actual methods for application in an average high school were mainly plans. Fears of the possible ill effects of class segregation or acceleration were expressed and curriculum obstacles seemed insurmountable, but with the permission of the administration and the blessing of the community representatives, we decided to work with what

Mr. Morhous is principal of Mont Pleasant High School, Schenectady, New York. Mrs. Sherley is coordinator of the school's competent child project described here.

we had, establishing all possible safeguards so that no child would suffer.

The satisfactory results obtained thus far in working within prescribed limitations have compensated for any doubts as to the validity of "doing" before all the paper procedures received the gold star of approval.

The project includes enrichment and acceleration in the departments of mathematics, science, English, languages and citizenship education. This is how it works.

Math acceleration

The chairman of the mathematics department had become convinced that a special math class for the gifted students was needed. An earlier device had been tried by which the gifted members in a heterogeneous group were called upon to develop the more difficult problems for the entire class, but this had reacted to the disadvantage of the slower members. Why try for the solution, they reasoned, if someone else would develop it?

Through special math classes, the gifted child is stimulated by his peers and the average child feels less resentment and greater incentive to work out his own solutions. Selection of the special group is based on IQ tests, the achievement success in elementary algebra in junior high school and the recommendations of the junior high school guidance counselors.

The math program utilizes segregation and acceleration. This group proceeds as rapidly as desirable from one level of accomplishment to the next and will complete the usual three years of mathematics in two years. In the third year of their high school mathematics course they will take the equivalent of a freshman college math course so that they may enter college with advanced standing in this field.

As a safeguard for the pupil, a careful check of the individual's math progress is made. If a youngster is unable to keep up with the class he is transferred to a regular class without loss of time on his part. This program is based on the Ken-

yon Plan with modifications necessitated by New York State syllabus requirements in mathematics.

Enrichment is looked upon more kindly than segregation; it arouses less public prejudice and causes fewer curriculum difficulties. The best type provides development of essential skills or understandings and opportunity to exercise initiative and originality. In a heterogeneous group, enrichment means infinite planning and a vast expenditure of the teacher's time as she tries to meet the needs of the gifted and the average child. Enrichment, properly used, is not simply assigning "more of the same."

The departments of English, language and citizenship education use enrichment mainly, although some segregation on the basis of achievement or interest has been included.

Creative writers

An elective course in creative writing is offered. It is segregated only in the sense that common interest has brought the group together. The intelligence quotient is not the deciding factor here, although individuals are chosen with the recommendation of their English teachers. Pupils participate in planning the types of writing they wish to study and practice—short stories, poetry, drama, essays or radio and television scripts. Sources for ideas, plots and models are explored and developed. Magazines and anthologies are examined. The students and teacher discuss problems in writing such as

the wisdom of specializing in one type of writing, forms of manuscripts, plagiarism and refinement of ideas. Private pupil conferences are held during and after class.

The writing class members outline the plots of their short stories to the class for comments and criticism. Every member is heard and everyone listens. They polish their own ideas by reading to each other examples, say, of expressions describing sound, touch and sight from outstanding published works. Plots from various sources—themes, newspaper stories, personalities, localities—are worked out. As proficiency develops, the youngsters submit their best work to magazines. Some work individually or in groups writing alma maters; some write for the school yearbook; others write essays for various local and national contests.

Ici on parle francais

The language department carries on a valuable laboratory course for pupils of superior ability. Spoken French, designed as a supplementary course for the work covered in the French II and III classes, enables those students to hear and speak more French than is possible in the regular classes. A language laboratory in the rear of the classroom is equipped with tape recorders, eight pairs of earphones, individual booths for four students and listening space for four more students, two on each side of the machines.

The basic text is Spoken French,





Above: student in the creative writing class outlines his story plot for comment and criticism by the group; with the class is co-author Sherley.

Left: student works independently at her research file on a social studies project.

Right: group research on a history topic; these three students will enter college this fall, two on scholarships.

On page 39: students in the language laboratory shown working with tape recorder and earphones.





Two scientifically-gifted students perform a demonstration in the science laboratory. The science seminar offers proficient juniors and seniors an opportunity to report on and demonstrate topics of scientific interest and to become acquainted with opportunities offered in the career of science. Industrial leaders from the community are frequently called in to speak to the members of this seminar group.

with accompanying tapes in French. While half of the class is listening to tape recordings, the other half is practicing the sentences heard on the tape or engaging in informal conversation in French. Tape recordings of French conversation, made by two French exchange students, are used in the course. Playlets and skits in French are presented as experience increases fluency. Monthly social events at which only French is spoken are planned and enjoyed by this group.

A program for enrichment of the Latin II course makes use of acceleration. The syllabus requirements are met in the first semester, concluding with final testing. The second semester is designed to give the pupils a broader study of Latin literature and the contributions of Roman civilization. Excerpts from Cicero's orations and essays, Vergil's *Aeneid*, Ovid's *Metamorphoses* and the *Meditations* of Marcus Aurelius are read, some in the original Latin and some in translation. A tape recording is used of portions of Cicero's first oration against Catiline, with an introduction and conclusion in English. The stressing of Latin phrases used in English and both Greek and Latin roots or stems in English words creates a broadening in vocabulary usage and semantics. Since many pupils take only two years of Latin, this program considerably enriches the usual course in Latin II.

Enrichment in history

The curriculum in history provides the use of a three-year sequence—world history in the 10th year, American life and institutions in the 11th year, and American problems in the 12th year—which offers the best preparation for academic pupils with a special interest in history. In possibilities for the gifted child, the course offers almost unlimited opportunities for research, interpretation, development of fluency in both oral and written expression and practice in integrating past world movements with current history.

In Social Studies 12, a simple program is used for a heterogeneous

group with satisfactory results for the whole class, whether the individuals are gifted or average. The class selects a number of large units of work, such as, say, nationalism, colonialism, etc., and the pupils choose for individual study those which interest them most keenly.

A basic magazine, chosen for its diversity of news and impartial reporting, is subscribed to by each. Each pupil keeps his own file of current material relating to his chosen topic. If several pupils choose the same topic, each finds it necessary to search out material from other sources, since duplication of material is discouraged. One day each week panel discussions are held as the class explores the modern scene in as many areas as time permits. A summary of the discussion is written each time by a different member of the group so that each gains experience in reporting.

At the end of a ten-week period a comprehensive summary of background research on the chosen topic is written. Thus, current history is integrated with the past, individual initiative in research is pursued, group discussions become vitalized, and a continuing review proceeds. Practice in presenting ideas and organizing material is achieved by panel discussion and written summaries.

A science seminar whose membership is restricted to 11th and 12th year students who have shown high proficiency in science as determined by grades and interest in previous science courses is held after school. The purposes of this seminar are to offer pupils an opportunity to report on, demonstrate and discuss topics of scientific interest and to acquaint members with opportunities offered in science as a career. Speakers from the student group, faculty members and industrial leaders from the community present topics of immediate interest. This is followed by a discussion and question period. From this very competent and interested group some students have been encouraged and helped to do original experimentation worthy of entrance in science fairs and science talent search contests.

A course in the appreciation of the visual arts—architecture, painting, sculpture and the minor arts—is offered to 12th year college-preparatory students. An introduction to and an appreciation of art forms from earliest times to the present day, including a study of the modern movement and its various roots, is developed. General aesthetic values are stressed as well as the cultural significance.

And now, one may well ask, what has happened? We know that no child—gifted, average or less capable—in our school population has been neglected. The faculty has been stimulated to take a new look at procedures and courses to see what changes would be beneficial to all students. Gifted students have expressed an interest in the continuation and enlargement of the programs already under way. Evaluation of several of the projects by the students themselves has shown the faculty that the program is challenging and stimulating but that some improvements are needed.

Not an "honor group"

The teachers participating in the projects feel that to obtain the best results, homogeneous grouping is necessary. There is no wish to create an honor group which will be kept together in all subjects. A student may be "gifted" in music or art, but possess little interest and ability in history. Groups of pupils with like interests and abilities achieve more since they are competing within a group of their peers.

The average pupil in a heterogeneous group expresses resentment at the inescapable dominant influence of the "gifted"—inescapable, because the gifted child often possesses the ability to lead, initiate and influence. Grouping by ability in a heterogeneous class is an artificial device which fools no member of the group. The limitations of time and the number of groups make it difficult, if not impossible, for the teacher to work with each group and develop the varied potentials of each member.

One of the most interesting responses to the program in mathe-



Members of the art appreciation group inspect a modern painting in the Schenectady art museum.



Pupil and teacher confer privately on writing problems as they read galley proofs for the student anthology.

matics came from a group of 11th year pupils. They proposed attendance at the summer school session to study advanced algebra and solid geometry with the understanding that the chairman of the department would offer the course in calculus and analytical geometry a year ahead of the planned time for the pilot group, begun this year. This group reflects the eagerness to learn, so characteristic of the gifted child. If we offer him a way, he will be quick to grasp its challenge.

"I have learned how . . ."

The creative writing group made a number of thoughtful appraisals. This is what some of them wrote: "I have learned how to express my ideas in writing—also many writing hints such as simplicity." "Particularly important is the fact that the students are able to help plan the course." "I have begun to appreciate what I read." "The practice of dissecting each others' stories has helped me see some of my own particular errors in writing."

Spoken French appeals to pupils who have professional careers in view. One boy seeks to acquire fluency in French because he is interested in preparing for the foreign diplomatic service. Another plans to be a geologist and believes his work will take him to various parts of the globe. One plans to be a teacher of French. Ambition to qualify as an interpreter in government service or in some commercial house leads another to plan for a college major in modern languages. All pupils feel that the fluency attained in Spoken French will be helpful to them now in their regular French II or French III classes.

The administration has experienced profound satisfaction in actually working with the students in such a program, instead of delaying until a perfect plan is evolved. True, the "bugs" appeared; but the plans are not just on paper, not just theories. The results achieved, not as perfect as were envisioned, show what can be done by a typical school within the restricted limits of time, money and curriculum to develop the potential of the gifted.

THE SCHOOL EXECUTIVE

All Schools *Can* Reduce Accidents!

by WILLIAM A. ANDERSON

ACCIDENTS ARE A CAUSE for concern in nearly every school. First, because administrators are interested in all of their pupils, and secondly, because accidents are very poor public relations, particularly when the school cannot bear the necessary medical costs without admitting negligence.

Our school has always had the twin policies of close supervision and the immediate and accurate reporting of every accident no matter how trivial. The school nurse handles the accident reports from the teachers, and examines each case to determine its seriousness.

In 1952-3 the alarming increase in the number of accidents during the previous year prompted the school to appoint a committee of three headed by the nurse to study causes and to try to reduce their incidence. The committee reviewed each of the 200 cases and determined that there were many more accidents among boys than girls, that most accidents occurred in the gym or on the play-

ground and that the Junior High children had far more (56 percent of all accidents) than other age groups. An interesting sidelight showed that six boys had nineteen of the accidents.

A one page, single-spaced typewritten sheet of summary and suggestions was given to each teacher; we also spent a portion of one faculty meeting making sure that all understood the importance of the committee's findings and recommendations in relation to the previous year's accidents. As a follow-up the committee issued monthly bulletins.

The results have been good as the following figures show, but we are not resting on our achievement.

Figures for 1951 show that there were 149 accidents to boys and 51 to girls in a registration of 649 students. Our campaign has resulted in a steady decline in the total number of accidents each year since then; the 1955 figures are most encouraging with 148 as the total number for a registration of 775. There is one unhappy feature marring these favorable results—the girls' record has not improved nearly as much as that of the boys and indicates that we should now concentrate our efforts on the girls and their teachers. A further breakdown shows that we have reduced accidents with older children but have not done very

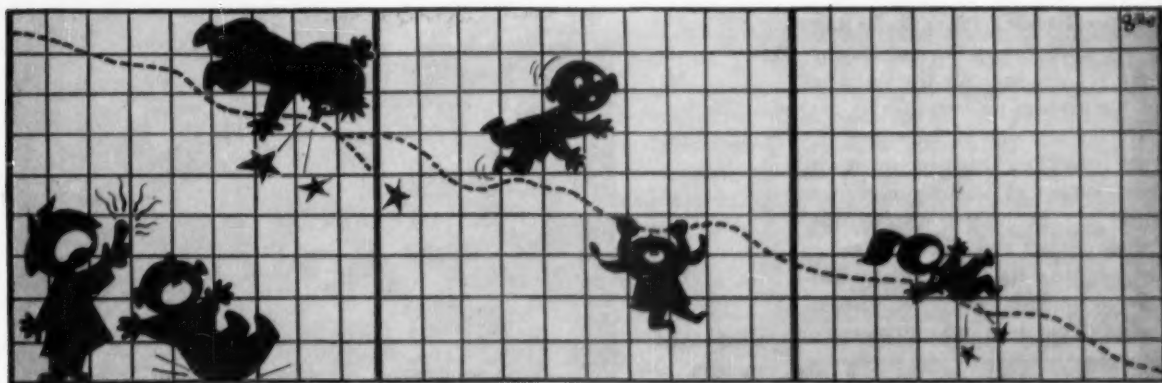
much with the very young children. Most of the accidents occur to the children in grades K-3. In addition, we have found that the playground at noon hour produces a larger number of accidents than do the recess periods. We can therefore conclude one of two reasons: that the playground is too crowded, or it is not well-managed.

There is one factor which seems to defy remedy—the problem posed by accident prone children. Of great interest to us is the record showing all of the children who have three or more accidents, and those who have had two followed by two or more another year. These children cause a fair share of all our accidents and present a medical or psychiatric problem which we catch in our nine graded school just too late to treat satisfactorily.

Each year every child with three or more accidents the previous year is brought to the attention of all teachers with whom he comes in contact. It is hoped in that way to keep a more careful watch and possibly educate that child to an awareness of accident situations.

We are encouraged that we do not have more repeaters than we do and hope that this partial success will eventually lead to an entirely satisfactory situation.

Mr. Anderson is the supervising principal of the Maine Central School, Maine, New York.



The belief that an ounce of prevention is worth a pound of cure led this school to study accident causes which in turn produced the fine results shown above. The yearly decline in the number of accidents has been most encouraging.

Extra Responsibility Merits Extra Pay

A new twist to the knotty problem of merit raises for the superior teacher

by ROBERT I. SPERBER

THE ISSUE of merit raises for superior teachers has been in sharp focus in the educational picture for many years. Educators have submitted many arguments *for* and *against* merit raises, but the struggle for a satisfactory solution is still going on.

Those in favor of the principle state that in industry and in the salaried professions such as engineering, a superior person is recognized and rewarded with more pay and see no reason why this equitable principle should not apply to teaching, too. They also feel that equal pay to all teachers on the same salary step regardless of ability and effort tends to stress mediocrity and dampens incentive to do a superior job.

The proponents of merit raises present another forceful argument, namely, that the lay citizen who pays the teacher's salary would like to see some procedure of paying more for the superior teacher than for the average teacher.

On the con side of the argument, those educators opposed to merit raises state that teaching is unlike other jobs because it involves the human element and all its variables. They further state that you would have to conduct twenty-year vertical studies of pupils in order to measure

the effectiveness of teaching. Another major objection to merit raises comes from the majority of the teachers themselves who feel that teaching is a cooperative venture. They claim they would tend to be less cooperative with teachers who had the same responsibilities, but who were getting more money because they were considered master teachers.

A logical substitute for the existing type of merit raise, (where the merit teacher receives a salary differential without performing additional duties) would be to give the superior teacher extra pay for extra responsibility. These extra responsibilities would have a titled job classification but would not result in removing the merit teacher from the classroom. Most of the tasks could be accomplished either before or after teaching hours, and would fill vitally needed spots in curriculum improvement, supervision of new teachers and community-school relations.

As an indication of their merit status, merit teachers would be eligible for the following types of jobs with extra pay:

1. *Teaching In-Service Courses*

With the vast amount of experience that a superior teacher accumulates through the years, it would be most logical for him to teach in-service courses to other teachers. All the superior techniques of the master teacher would then be shared through in-service education with other teachers in the school district.

2. *School Curriculum Specialists*

Master teachers could help other teachers with their curriculum problems, and, therefore, indirectly aid school principals in supplying instructional leadership. Providing teachers with resource material, teaching materials and advice on pressing curriculum problems might be another of their useful contributions. The master teacher could fulfill those additional duties without taking time from his class hours by

Merit teachers can enrich programs of the gifted . . .



Mr. Sperber is a classroom teacher at the Northside School, Levittown, New York.

after-school work, and at free periods or after lunchtime during the school day.

3. *Orienting New Teachers during Their First Year*

Orientation of new teachers, in most school systems, is a very informal and sometimes unplanned affair. After the first week, new teachers are usually very much on their own. Yet experienced educators know that problems for new staff members continue throughout the first year and sometimes beyond this period. With the many new problems school principals have to battle regarding bus transportation, rapidly expanding student enrollments and greater involvement with increasing school community relations, the area of orientation is often neglected. The master teacher's capabilities and experience could be employed in this area very effectively. He or she has most likely been in the building for many years and could act as a permanent guide and advisor for the new staff members. Having similar problems themselves they would be

the merit teacher could be used most successfully to lead experimental programs.

5. *Home Guidance and Visitation Programs*

Master teachers could be utilized for home guidance work, for children with special academic problems or emotional difficulties. They could function in coordination with the child's teacher, the school psychologist, the school principal and the child's parents to alleviate these special problems. Again the merit



or act as liaison between school and parent . . .

teacher would not be removed from his or her own classroom since these activities could be accomplished after school hours.

6. *Grade Chairman Responsibilities*

On the elementary school level, the grade chairman usually serves on a voluntary basis. Under the extra pay for extra responsibility basis, the merit teachers would be given extra compensation for being grade chairman with definitely assigned administrative and supervisory duties. On the high school level where department chairmen already receive extra compensation for their work, the high school principals could choose merit teachers to fill these positions.

7. *Working on Specific School-Community Problems*

The merit teacher could quite possibly serve as liaison with community agencies under the job title of community specialists. As specific school-community problems arise,



or teach in-service and other supplementary courses

these community specialists could be called in to handle them. As old residents of the district, the master teachers would be aware of community problems and would also know most of the lay citizens well; this would give them additional advantages in handling sensitive problems.

These seven suggestions do not exhaust the possibilities of utilizing the experiences of the superior teacher. Additionally compensated jobs could be created to handle the specific needs of local school districts, but the principle of additional job responsibilities with extra pay as the basis for a merit raise is a sound principle both psychologically and professionally.

Extra services benefit all

This approach for merit raises would not only financially reward superior teachers for their competency but other people and agencies would also have additional opportunities to share their professional skills. It would answer the objections of other staff members because the superior teacher would be performing additional services to qualify for the merit raise. The school administrators would be receiving help in critical areas of the school program. The Board of Education and the citizens would be getting competent, professional work for their additional tax money, and the children of the districts would benefit from these extra services that would add to the enrichment of the total learning situation.



or aid in organizing curriculums . . .

in an excellent position to give professional aid.

4. *Experimental Program Work*

Master teachers could be given the responsibility of planning and implementing experimental programs for gifted children, retarded children and other special subject projects. At a time in educational history when so much attention is directed toward the gifted child, and on the need for more scientific personnel,

Can We Beat the Scientist-Engineer Shortage?

In a totalitarian state it is easy to "order" and produce the number of scientists and engineers needed; in a democracy it's not as easy, but here are three suggestions which may insure our technological future

by HARRY H. RICHMAN

THERE JUST AREN'T ENOUGH good engineering teachers. We are experiencing increasing difficulty in securing staff replacements and additions primarily as a result of the great demand for engineers in industry."

This is typical of the lament being heard over and over again in colleges and universities throughout the country about the growing shortage of engineers and scientists. How can we cope with this pressing need? In this most acute situation, our public schools are caught in the paradox of an expanding technological society while attracting fewer and fewer people into this highly important but difficult field, both for industry and teaching. Along with our peace-time normal industrial needs, we are involved in a grim but feverish military race with the Russians who are "hot house forcing" a bumper crop of engineers and technicians while we with our democratic procedures are languishing.

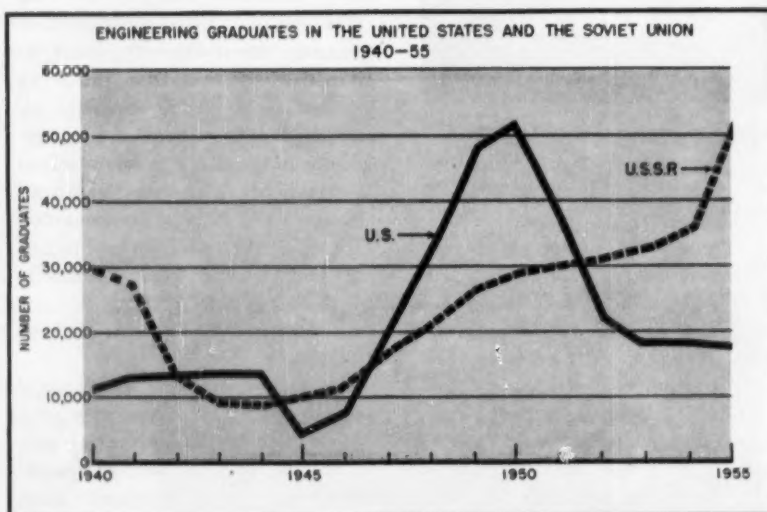
The Russians follow a simple formula: generous aids to education (this means free tuition at all levels, plus stipends to cover liv-

ing expenses and naturally the biggest stipends go to science and engineering students), fantastic salaries to engineers and scientists when compared with other Soviet incomes (they earn from six to ten times the average industrial wage) and most scientific personnel enjoy deferment from military service.

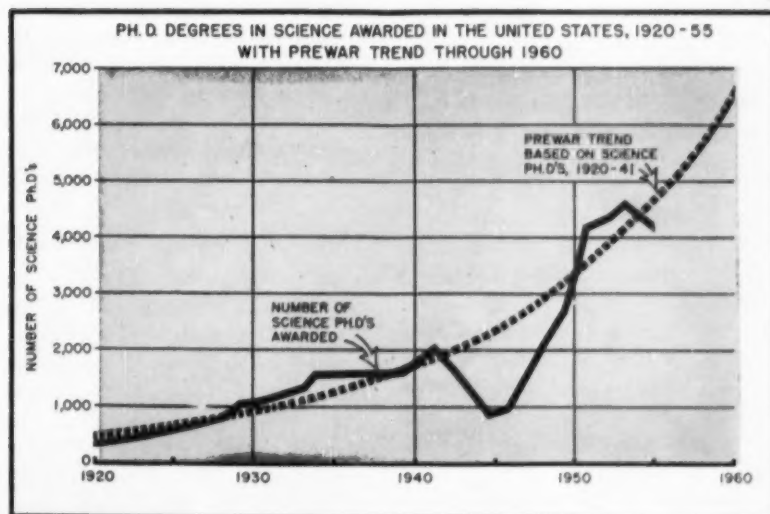
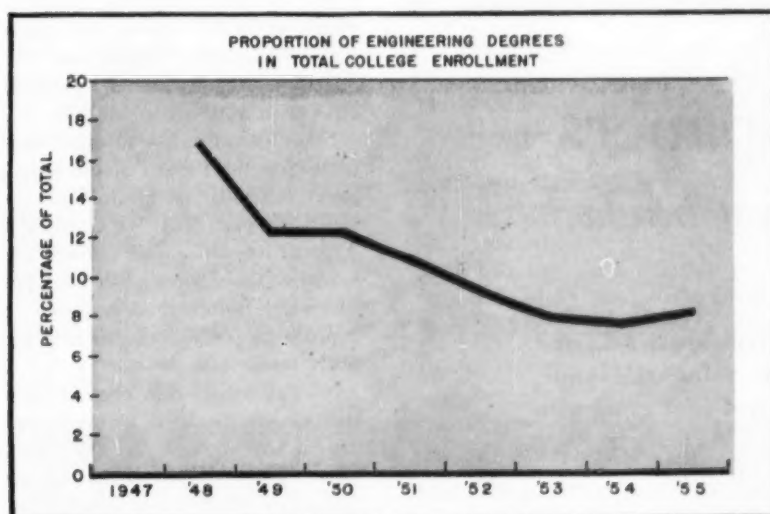
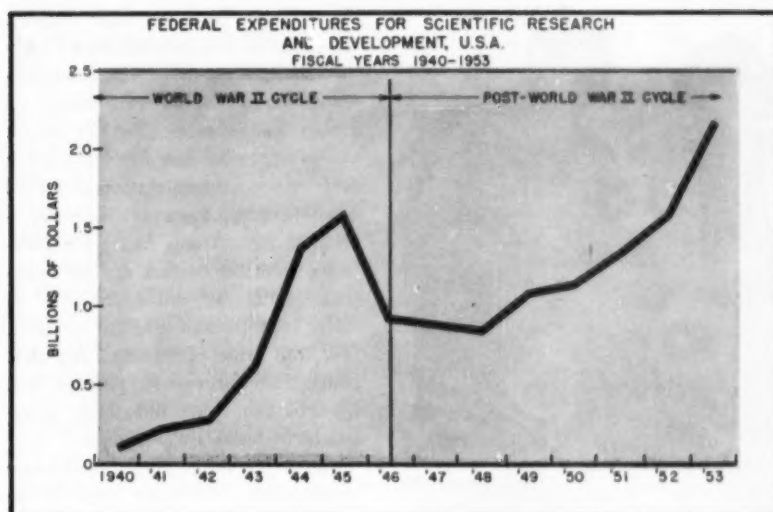
Most important in the Russian campaign for more engineers and scientists is the fact that the Soviet leaders can place their personnel wherever they are needed. Therefore, the engineering colleges and universities will never be hard-pressed for teachers to train their youth in these increasingly vital areas.

In America the opposite situation seems to prevail. With fewer pupils entering the fields of engineering, physics, chemistry, etc., industries are competing fiercely for our college graduates and are creaming off most of the more promising crop each year leaving few for teaching. Today, school superintendents are beating the bushes for good teachers of math and science with very disheartening results, leaving our pupils "short-changed" and further endangering our industrial progress and national defense.

This condition is becoming so dangerous that some remedial steps must be taken immediately. Common



Mr. Richman is the principal of the Christopher Columbus School in Elizabeth, New Jersey.



sense would indicate that at least the following suggestions should be considered.

1. Industries and foundations should expand their scholarship offerings enormously so that the expensive and arduous college education required of engineers and scientists will be made available to all who show any aptitude. This offering should be made particularly attractive for those who plan to teach.

2. A special salary level should be made for teachers of mathematics and science in our public schools. Too many bright young people possessing the mental equipment and the flair, reject the very difficult and rigorous regimen required of math and science majors in college while their colleagues enjoy life in the easier training of English, social studies, etc. The lure of extra compensation for the extra hard training and often more difficult teaching, might well tip the balance for many who have the talent for these subjects.

3. There must be a sharpening of emphasis and an increase of curricular content in the elementary schools in math and science both for better preparation of children and to create the proper mind-set. This would involve curriculum changes and much in-service training of teachers, but it is the necessary grass-roots approach to the problem.

Scientists-engineers play large role in the world's future

The four charts on these pages speak for themselves. They give a comprehensive view of today's situation and call for immediate action to insure our technological future. "We are certainly not going to adopt Soviet methods," as is stated in *Engineering News-Record*, which goes on to say, "we do not want scientific robots, but free men, able to understand and add to our democratic heritage. At the same time, our world leadership in technology—and perhaps even our survival as a nation—will be threatened if we allow ourselves to lag far behind Russia in the training of scientists and engineers."*

*November 3, 1955 issue of *Engineering News-Record*.



School Newspapers— *headlines not headaches!*

School newspapers shouldn't be frozen assets! Capitalize on their public relations value and your school will reap reams of interest and good-will

by TOM ERHARD

SCHOOL LEADERS often refer to school newspapers as "administrative headaches" and try to justify this feeling with phrases such as "printing costs are too high," "we simply cannot afford such a waste of the student's time," or "deadline pressures are too disrupting to school rule which students and sponsor beg be relaxed 'for just this one issue.'"

This is but a sampling of the comments that are voiced by the narrower-minded school heads who fail to realize that our present-day pattern of living demands that all sort

Mr. Erhard, public relations director for the Albuquerque Public Schools, was formerly the sponsor for a school newspaper.

of media be employed for the best two-way communication system possible.

Although most secondary schools and many elementary schools do publish newspapers, the number of school people finding fault with them are relatively few. Far more common—and far more of a problem to the seriously ambitious staff—are the teachers and administrators who are indifferent to the problems, aims and accomplishments of the school paper. Many people pay lip service to the paper without ever realizing the gigantic dividend that can be gained from a small expense of money, time and cooperation.

A good paper—not just a mediocre publication—can be of tremendous positive value to every school.

Second only to a top flight faculty, the paper is the greatest school public relations medium. Until recently many school papers were heavy on gossip and humor; but in recent years the trend has been toward a more serious interpretation of school life—including the academic curriculum. At last parents can get a satisfactory answer to that age old question, "What did you do today?" to which the student usually answers, "Oh, the same old thing." An alert paper staff proves to parents that it's *not* the same old thing being taught in today's classrooms.

Not only do parents learn more about their children's schools by reading the papers, but businessmen and other townspeople can understand the many problems besetting education in this era of mushrooming enrollments. There's no law against mailing copies to influential citizens in your school district.

School morale rises in direct proportion to the success of the school paper. Students and faculty both enjoy being part of a "good school." A paper merely going through the motions cannot accomplish this; but one which works conscientiously to improve its publication can help the entire intellectual climate.

Several nation-wide organizations exist solely to help sponsors and their eager crews: The National Scholastic Press Association at the University of Minnesota, The International Quill and Scroll Society at Northwestern and the Columbia School Press Association. The National Association of Journalism Directors has also made great strides in recent years. In addition there are a number of active regional and state organizations which offer much help to scholastic journalists.

Choice of sponsor all important

A "good" school paper does not grow like Topsy. Foremost is the choice of a sponsor. The sponsor should be well trained, preferably with some background in practical publications work. Above all, he should be enthusiastic about taking on the extra work. Although many schools do not have skilled jour-

nalists on their faculties, truly interested sponsors can, through college courses, summer jobs, outside reading and membership in professional organizations, improve their work until it reaches the highest levels.

Once selected, the sponsor should have a free hand from the administration with which he will remain in close cooperation. Sponsorship of a good paper entails more work than an academic class. The current national trend is to relieve the sponsor of at least one class. It's a move that will prove worthwhile.

Thousands of administrators can counter the complaints registered by the dissatisfied few. A school paper can be expensive; but it is one of the most profitable expenditures in the educational program. And the paper need not be a financial drain. A clear-thinking sponsor and crew can make even the most elaborate papers finish in the black. If the business staff makes the effort to draw up ads that will sell merchandise to specific purchasing groups that read the school paper, many merchants will gladly do business with the publication. Efficient organization and economic operation by

the entire staff is of course essential.

Rather than making work for a principal, the good paper lessens the faculty's problems considerably. Much valuable time is consumed daily by principals, office workers and teachers answering questions—by phone, mail or in person—posed by townspeople who do not understand school philosophy. The up-to-date publication interprets the educational program and does not try to conceal it behind a sugar-coating of merriment.

Newspaper work aids maturity

The most positive value of a school paper is the enrichment of the students' fundamental skills.

Students are trained for life. Teen-agers learn to meet iron-clad deadlines; they learn to work, not only independently and rapidly, but with others. They associate with other students, enlarge their circles of friendship because of newspaper assignments and work more closely and happily with faculty members.

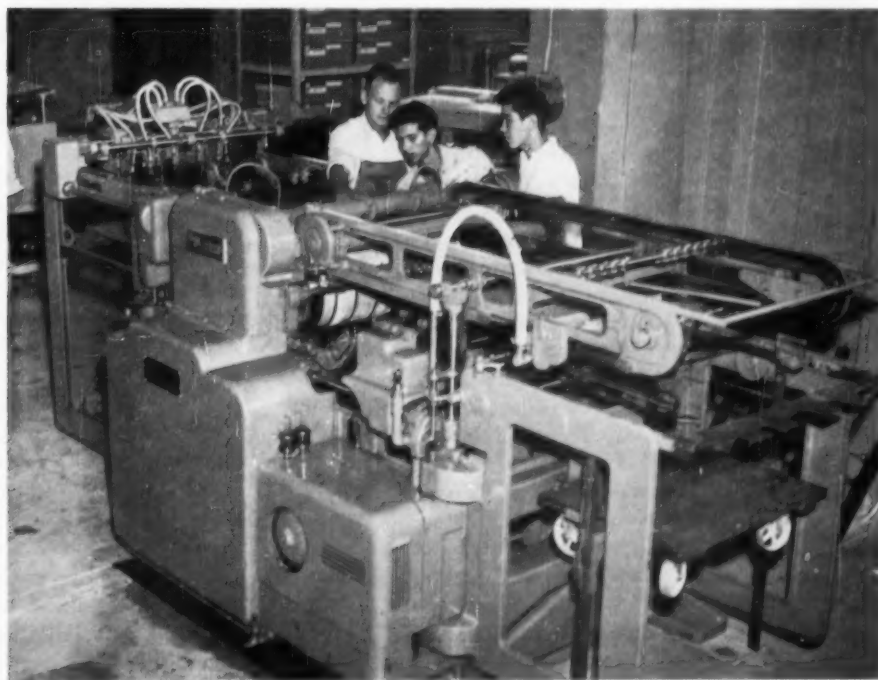
Immersed in that teen-age microcosm—the modern secondary school—students can make valuable contacts with adults through the advertising staff and contact with a print

shop. From their selling of advertising, students see how the American commercial system works and get valuable practice in the basic principles of ethics, personality and economics necessary in later life.

When the paper reflects educational philosophy, students understand their school better and more often see the underlying reasons behind the many "No's" that every principal must say at times to his enthusiastic teen-agers.

And if this isn't enough encouragement for you to spur that school paper of yours to greater efforts and more mature results, here's the best reason of all: through the school paper the participating students—a large number in a modern school—get more motivation for and practice of language fundamentals than from any composition class. The hue and cry about whether Johnny can or cannot read goes on; but the thousands upon thousands of Johnnies and Janies on school newspaper staffs are top flight readers and writers—and they keep improving all the time.

Headline or Headache? That's easy; a *good* school paper is the best headline you've got.



Fortunate students are those whose schools operate their own printing plants. Here, the printing instructor at Albuquerque High School explains the school's new Miehle Automatic Press to vocational printing students. This press prints newspapers and yearbooks for two Albuquerque secondary schools and three high schools.

Step Into the Future . . .

by JOHN H. FISCHER

THE URGENCY of building without delay the high schools we shall need in the next five years is unmistakably clear. Babies born in 1942 are celebrating their fourteenth birthdays this year and under the relentless impact of the population statistics, school planners are finding few quiet moments. Still behind in the race with elementary school enrollment, we must now plunge headlong into the even more complicated business of high school construction.

In some places a small part of the load is being absorbed by the use of temporary structures, but most of the buildings now under way and on the architects' boards will be permanent; and it is a safe guess that most of the new schools will stand for 50 to 100 years. Designed to facilitate education today, will they do it as well a half century from now?

Shortcomings of present and planned school plants are rarely the fault of the architect; his job is not to devise the curriculum, but to understand and aid it through an archi-

tectural solution to an individual educational problem. Even less is the architect responsible for projecting long-term trends in educational philosophy and technique.

Projection is the responsibility of the educator and in meeting it he must identify, as well as he can, the trends and forces that shape the role and function of education in our society.

To build a school is to make commitments — financial, philosophical and technical. But there is some leeway for choice. Experience demonstrates that a rigid devotion to the status quo in school design rarely yields either stability or safety, but is more likely to bring early — and expensive — obsolescence. On the contrary, it is wise conservatism balanced by perception and imagination that produces, in school plant planning as in other fields, progress essential to any institution.

Future developments are predictable in terms of our experience, our knowledge and our purposes. Our knowledge and experience, applied to our purposes, lead to four assumptions within which our projections may be organized:

1. Schools, like other institutions, are subject to continuous change. Even revolutionary change is found upon close examination to be a more

and examine the problems facing society and hence, schools today, in order to predict the influences that will shape secondary education in the next fifty years

The text of this article was delivered in May by Dr. Fischer, Baltimore's superintendent of public instruction, at a school building institute held at the University of Chicago.

rapid form of evolution, and often an explosive response to the need for changes too long delayed.

2. Tomorrow's schools will grow, sometimes almost imperceptibly, out of today's and to some degree they will always appear—and be—old-fashioned.

3. Both the direction and rate of change will be influenced by our dissatisfaction with present schools and their inadequacies.

4. The forces that will produce any currently predictable new patterns are already present and operative, and may be identified.

Background, details and questions to heed

WHATEVER AFFECTS society affects schools. Educational institutions will inevitably be altered, probably to a substantial extent, by two of the forces that now bear upon the entire social order.

The first is our democracy, with its steady flow of thought and action and high degree of individual development; but with the growing threat of mass living acting as a counterforce. Second is the rapidly increasing use of energy to serve the purposes of mankind.

The age-old struggle for individual fulfillment and recognition moves ahead with growing momentum: in one form in Alabama, in another in India, in yet others in South Africa and Israel. Nowhere is this movement seen in a more dramatic form than in the extension of universal education in the United States; from the elementary level where it has been practiced for over a century to the high schools where it is a relatively new concept.

That we discover new difficulties daily should not surprise us. In hundreds of our high schools the pupil of less-than-average academic aptitude is still looked upon as an unwelcome intruder and does not find

either toleration or accommodation.

But frequently we appear to assume that the good life which is supposed to accompany better education may be assembled from interchangeable parts, mass produced and available at any discount house. Uniformity characterizes the houses, living patterns and tastes in new suburban developments. A far more ominous danger exists in slum areas. In the newer housing projects in metropolitan centers countless families are the victims of cultural and economic forces they can scarcely see, much less understand or control.

It is inconceivable that the American high school will not be affected by these opposing elements of democracy: ability to obtain a higher standard of living, but finding that the standard has become standardized. Indeed, in many places the schools are already caught up in them.

How will the schools cope with them? How may we keep the schools from being swallowed up in them? Is it conceivable that we may turn them to constructive purposes?

Energy raises standards

Turning to society's second major force and its effect on education, we find that increased harnessing of energy has resulted in a rapid rise in our material standard of living. From 1925 to 1940 the per capita productivity (gross national product) of the United States increased about 15 percent. The increase from 1940 to 1955 was just over 43 percent.

The standard work-week in 1925 was six days (48 hours) and regular, paid vacations were rather rare except for professionals, managers and white collar groups. Today the work-week is down to five days, and paid vacations are automatic. Already the 30-hour week is a distinct possibility and it is not improbable that pupils now in school may see a 20-hour, or four-day, work-week before they retire.

Abject poverty is disappearing as a social problem in many parts of our country. This is due not only to our enormous productivity but in large measure to the more equitable distribution of the wealth we produce.

A serious imbalance remains, however, in our pattern for distributing a portion of our productivity to those social institutions, including schools, which provide the cultural underpinning upon which industry and commerce flourish. But there are growing signs that the American people will find the means for diverting a suitable share of our output to the cultural agencies that alone give meaning to our material gains.

It is impossible to examine the topic of productivity without some consideration of automation and its enormous educational implications. Soon it will be impossible for schools to rationalize their avoidance of the slow learner by consigning him to the category of hewer of wood or drawer of water.

When our wood is cut by automatically controlled saws and the logs measured and accounted for by electrical calculators, the demands on the school will be of a new order.

Although this illustration is imaginary, the principle persists. At the lower end of the labor scale, unskilled jobs are fast disappearing; while at the upper end, the demand for well-educated technicians, scientists and administrative personnel rises not only in number but in the quality of required preparation.

The impact of newly released energy will largely reshape our world, and among the first institutions to feel this force will be the schools. Will they be adaptable enough to meet the new demands? Will they lag and so hold back the onward thrust of scientific development, or will they respond with new insight and resourcefulness to give leadership equal to the demands?

Research brings new ideas for educators to apply

OTHER, MORE SPECIALIZED trends will have to be reckoned with in the schools. Advancements in the

behavioral sciences already have radically altered the nature of our curriculums and our teacher-education programs; and additional research is certain to bring a continuing flow of new ideas into educational practice.

The concepts of heredity and environment and their relation to development and our notions of the nature of intelligence are being steadily bombarded by barrages of new evidence, upsetting some of our traditional patterns of educational procedure.

Developments in the use of drugs, emerging theories on the interplay of intellect and emotion and a growing interest in the effect of cultural environment upon personality and learning may influence the work of the schools.

The field of inquiry dealing with the effects of tensions and security upon physical and mental health will certainly produce findings of great significance to teachers. Further studies in physiology and psychiatry may lead to educational changes that will dwarf those of the first half of the twentieth century. Investigations of human development may expect to benefit substantially from the interdisciplinary approach, only now coming into its own.

Develop consistent approach

Of possibly the most direct effect upon school programs and hence upon school plants will be developments in teaching and school administration. The Random Falls Idea, recently set forth in this magazine (*March, 1956*), is but one example of how drastically different an American high school might be if we were to combine in it much of what we now know about youth, teaching and the community.

This hypothetical program is not at all new in its details, for bits and pieces of it are accepted practices in a thousand different schools. What is new in the proposal is the creative synthesis of these elements into a curriculum that is philosophically consistent.

Although secondary education has not stood still during the past five or six decades, many of the changes

have been based less on evidence and valid research than on conflicting philosophies and unsubstantiated theories of methodology.

There is now a scarcity of solid study of the teenaged youth; but we appear to be on the brink of research and experimentation to determine how the high school may best play its role in universal education.

Reappraisal of the school's responsibility to prevent delinquency, motivate more of our able young people to seek further education and instill a stronger sense of civic responsibility will emphasize the role of education in development of personality. Guidance and counseling will be actively, but not exclusively, involved; and what we still call extracurricular activities may come to have a more prominent place in our programs.

Group dynamics techniques have influenced schools with new ideas about the nature of groups and their effects upon individuals. These, as well as the expanding inquiries into the nature of communication, will inevitably alter administrative procedures and school-community relations.

The entire structure of secondary education in the years ahead is likely to be substantially affected by new ways of organizing and presenting subject matter. A new synthesis, in the offing, must emphasize that sound learning experience in a variety of fields, carefully planned and critically examined, has greater educative force than a smattering of knowledge precariously committed to an unconcerned memory.

Maximum growth of each pupil is for schools to nurture

WHAT, THEN, MIGHT WE expect a high school to be like in 10, 20, 50 years? Let us, to be arbitrary, set down this description as though we knew a good deal more about the future than we actually do.

In these new schools, much more

than in today's, high school students will be viewed as people in their own right, rather than as older children training to be adults. The school program will recognize their individuality along with their immaturity and will provide a flexible and broad curriculum complemented by sound guidance service.

The major departure from present day schools will be the improved means of meeting the educational needs of all young people. For those with high level academic ability, the school will offer opportunities for more independent work in a setting favorable to rapid but solid intellectual growth, to wide and deep inquiry and study. Teachers, books and every other learning aid will inspire and facilitate the efforts of the able student. And academic excellence will be as highly respected and rewarded as athletic prowess is now.

Slow learners appreciated

There will be welcome, recognition and reward also for pupils who learn more slowly, and for pupils with aptitudes other than those to which schools traditionally have been attuned.

All the arts by which men live will be important in these schools and whatever promotes better living will be honored in them. Special attention will be given to encourage civic participation. The potential for leadership and responsibility will be cultivated in pupils of all levels and types of ability.

The school will be more a part of the community than it is now and the community more a part of the school, for the whole town and its surrounding territory will be used as a laboratory for work and study and for the systematic induction of new citizens.

The school will not lose its identity by seeking to be all things to all men because its unique role as a major social institution will be better defined than it is now. As the result of a thorough-going reappraisal, the school will serve primarily as a coordinating agency to promote learning, personal development and culture. It will offer also a variety of

specialized services, all designed to aid, in one way or another, the maximum growth of pupils.

This school will be concerned with well-balanced education of each young person, but it will seek at the same time the emergence of healthy differences—of constructive idiosyncrasy. In its attention to intellectual, emotional, physical and moral development, it will be dedicated above everything else to nurturing individual integrity.

As today, the teacher will impart knowledge, skill, principles and attitudes in relation to major human problems and to the areas of accumulated knowledge. He will also provide, as he now does, a strong supportive relationship for the young people who look to him not only as an expert but as a friendly counselor.

He may not necessarily, in the school of the future, serve these functions simultaneously, or with the identical groups of students. If, for example, he is the best chemistry teacher in a large high school, he may lecture by closed-circuit television to classes of 200.

Teachers in small schools might meet the six seniors who have the interest and ability to study calculus, or might conduct a small advanced seminar-type class in Asiatic history. A teacher might even serve part-time as a lecturer on television for the schools of his section of the state.

There will be a *new kind* of teacher in this school, too. He may be an expert in electronics, a member of the community's industrial teacher reserve; or he may be a visiting consultant from a government agency or a nearby college.

Assistants for instructors

To help these part-time instructors and the regular teachers, assistants will be employed. Some will be clerks, some technicians, some general classroom aides, but all will relieve the trained professional of time-consuming chores that do not require highest level skills.

A basic purpose of the new secondary schools will be to provide each teacher with all enabling means to perform at top capacity. No longer

will films, recorders or microscopes be looked upon as desirable luxuries. They will be viewed as necessities, supplied accordingly, and arranged in the classroom to make their use easy and natural. It will be as simple, for example, to use a motion picture film as it now is to use a flat map on a spring roller.

Plant, staff and community harmony to achieve

SUCH SCHOOLS will obviously require plants designed to promote superior teaching and learning situations. Because each will be indigenous to its own community, there will be great variation in the structural arrangements. In open country the campus type plant will be popular. In great cities, the same ends will be achieved by high-rise buildings serviced by king-sized elevators.

But wherever they are, these new school buildings will be imaginative and flexible. Classroom partitions will be easily movable and spaces, variable. Groups of six or 600 will be provided for, and changes in classroom size for any curricular activity will be possible with a minimum of effort.

The professional staff of this new school will involve many contributory disciplines. The regular consultants will include psychiatrists, sociologists, psychologists, anthropologists, cost accountants, operations research people. From time to time, representatives of all the academic disciplines will work with individual pupils and teachers, citizen advisory groups and faculty committees. Any group involved in the study and solution of a school problem, whether

it touches a new course of study in Latin, a problem of freshman adjustment or the most efficient use of limited space to house an expanded enrollment, will have the counsel of specialists.

Administering these schools will be a demanding job. It is to be expected that such schools as are described here will come first where the administrator is best prepared to meet the rush of the future and best able to serve his community, his school board, his staff—as teacher, leader, public servant or technician.

Steps toward goals for leaders to consider

THE SCHOOLS of the future are on the way. The forces that will produce them are already at work and have been for some years. Moreover, their approach is quickening because communication is speedier and new ideas permeate our country faster.

If administrators and architects now at work are to lead in planning and building the school of the future—if we are to keep ahead of the procession and to contribute significantly to charting the course—they shall have to appraise critically the trends now under way.

With rare discrimination we shall have to select and use the forces which will carry us toward our historic goals, and reject or counteract those that tend to carry us off our course.

It will not be easy to house a program which has not yet come into being, but realizing that such a problem exists is the first step toward solution.

University Staffs Work the Field

... as the college of education's central field service teams act as town and gown liaison agencies to help school-communities solve local educational problems

by MERLE R. SUMPTION

FOR MANY YEARS, state institutions of higher learning have recognized an obligation to contribute to the improvement of education through programs of field services. The nature of the development of such programs has depended upon available human and material resources and also upon the concept of the function of field service as a part of the institutional program. Service to the local school-community ordinarily forms the major portion of the institutional service program.

One early approach to the problem of service to public schools was that of having the institutional staff team, or individual members of the staff, make a critical evaluation of the problem situation and propose a solution in accordance with pre-determined professional criteria. Solutions thus obtained often received only passive acceptance or, in some cases, encountered active opposition. Even the most satisfactory solution lacked the obvious advantages of local ownership and understanding.

Another field service practice of state universities is based on the belief that aiding the school-community to use local resources with maximum effectiveness is the most potent service which can be rendered the local school system.

By observing this principle of helping schools solve their own prob-

lems, university staff members furnish the local school-community a pattern of operation, ways and means of mobilizing resources, methods and techniques of cooperative problem-solving and, finally, guidance and counseling in developing long-range plans.

In accordance with this concept, the institutional staff functions are: —helping the local school-community to define its problems clearly and in detail;

—pointing out the local resources available for solving the problem, and guiding school administrators to organize and utilize them;

—supplying a framework of study through which the issue may be resolved.

Field service staff members also suggest ways and means of involving local people in the project and, with school-community members, develop a work plan which places definite responsibilities on certain local groups.

Further work procedures for the university-connected aides are:

—furnishing methods and techniques, as well as procedures, for collecting, classifying and analyzing pertinent data;

—acting as guides, counselors and resource people in interpreting data as the project develops;

—providing professional criteria to test the tentative solutions advanced by local people.

As the solution is developed, field service staff members act more and more in an advisory capacity. They

aid in formulating a report which embodies the solution and recommendations for its implementation.

Information incidental to the establishment and maintenance of a two-way channel of communication between school and community is furnished by the institutional team, for use both at the time of the project and afterward as the report is publicized.

The problems which local school systems encounter are many and varied; and, if a university is to offer a comprehensive program of services, it must have available a wide variety of competencies. A suitable central staff will necessarily be composed of people who have a general knowledge of the field of education; but, in the program described, this staff is primarily concerned with procedures rather than content.

The central field service staff, a part of the college of education, operates as a nucleus group which is primarily concerned with creating the conditions under which problems may be solved most effectively. This staff consists of four faculty members who spend the major portion of their time in field service and an equal number of graduate students who serve as assistants. The primary source of needed competencies is the college of education staff whose members have portions of their time allotted for service in the field. This allocation is made by the dean of the college with the aid and counsel of department heads.

Time for contact and research

The purpose of the allocation of time is three-fold: (1) to afford services to the public schools; (2) to insure that the college staff has close contact with local schools so that it may consistently maintain a sensitivity to current school problems; and (3) to develop and maintain research situations in the field.

Many staff members, although fully assigned otherwise, perform field services because of their interest and their feeling of need for this type of experience. This arrangement makes it possible for the cen-

Dr. Sumption is director of the office of field services at the University of Illinois.

tral field service staff to have skilled people in a variety of areas on call to meet the demands of any occasion. Problems in adult education, community college programs, school finance, pupil personnel, curriculum, school buildings and similar phases of the local school program demand and receive the attention of specialists on the college staff whose major functions are teaching or research.

Public school problems often need competencies not found within the ranks of the college of education. In this case the central staff seeks aid from members of other colleges in the university family, such as the departments of art, community planning, business management, music, library science, sociology and psychology. The faculties of the colleges of liberal arts, law, agriculture and architecture are frequent sources of assistance in school projects.

In one instance a geologist may act as a resource person in the selection of a school site where the

problem is one involving water supply. A soil specialist may prove helpful if the site problem involves erosion, plantings or turf maintenance. These university staff members do not provide answers, but help local people to find their own solutions and, in so doing, may indicate where the help of private agencies is required. In this way there is seldom danger of conflict with private enterprises which offer commercial services in these problem areas.

Qualified people from other communities who have been successful in studying their own problems form a third and still broader source of consultants. They may be either professional educators or lay citizens who have demonstrated ability for grappling with educational problems and arriving at suitable solutions.

These people are often specialists—in fields such as public administration, public relations, public finance, industrial organization, adult

education, personnel administration and similar areas—who bring to the project not only a thorough specific knowledge but also a background of experience in working with lay citizens on similar problems in other communities. Professional people who have had successful experience in solving comparable problems in their own schools are also called upon.

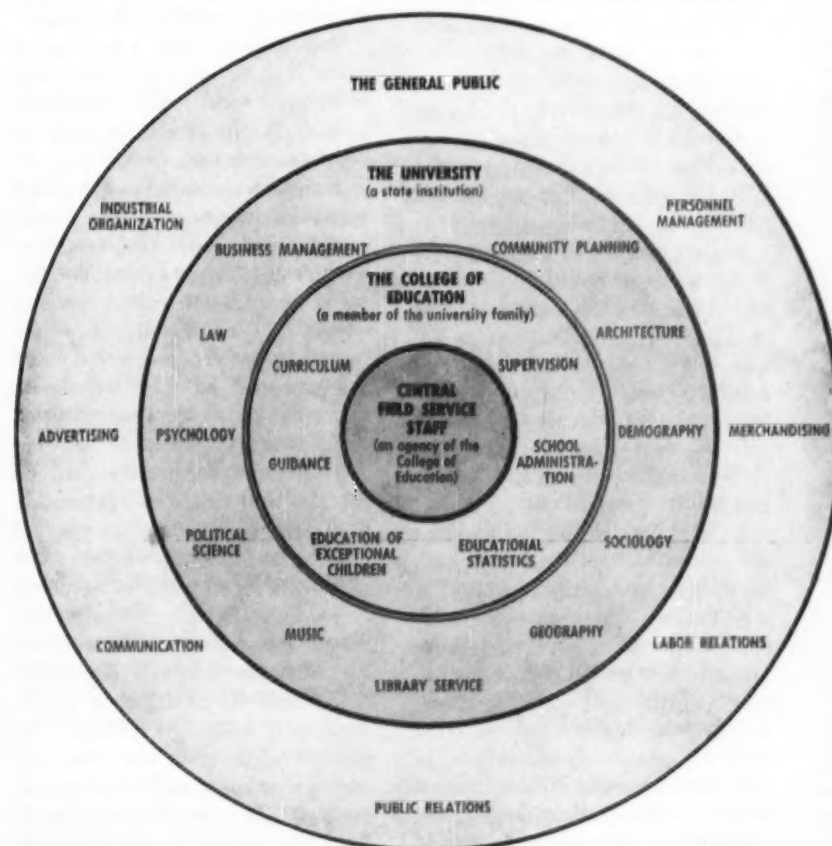
The type of staff development outlined above and pictured in the accompanying diagram offers rich resources for approaching school problems. Through this framework a competent and versatile staff of consultants can be assembled to work on a particular educational project, no matter how complicated. It is not unusual for 20 or 25 specialists to be consulted on a school building survey in a large community.

However, the number of consultants represents but a fraction of the actual number of people involved in such a project.

A comprehensive study may involve as many as several hundred local citizens who undertake to perform tasks of varying degrees of responsibility. In this way, numerous orientations of thought are brought to bear on the local educational problem. And the function of the consultants is to furnish a pattern for the project and develop procedures, methods and criteria which will enable local people to make constructive contributions towards problem solution.

The real values of school-community projects aided by a field service team extend beyond immediate problem solutions. Citizens have been rallied to work effectively together with a common purpose. Often a deeper sense of unity and mutual respect is developed between the school and the community it serves. Furthermore, a precedent and a pattern for working together have been set up which can be particularly valuable in the solution of any future problems.

University faculties interact with the public to improve schools.



Citizens Blueprint a Program

*Selah, Washington, proves again the
laymen's effectiveness in school planning*

by E. L. STEINKE

THE CITIZENS of Selah are indeed fortunate to have a school board which has not only asked them to raise the money for a school building program, but is also asking them to help spend it!"

That remark from the school building consultant of the Washington State Department of Education launched the three-day workshop of Selah's Citizens' Committee which set out to plan a high school best suited to the needs of their growing community. This workshop was the result of an attempt by the school administration and the school board to draw community leaders into the planning of the new plant.

The Selah Citizens School Group has been active in promoting the bond issue to raise the money needed, and even held three meetings preliminary to the school conference to work out techniques for a group approach to the problems. Various other committees directed their efforts to the following problems during the summer months of 1955: what training should the students from our secondary school program have if they plan to attend college? what training of a vocational nature should be offered for students? and what activities are carried on in a secondary school program and what is their purpose?

After these committees presented

Mr. Steinke is superintendent of the Selah, Washington, Public Schools.

their reports, they felt that it was advisable to bring in outside consultants to help them determine what type of school program would be best suited for their community.

Subsequently, in October 1955, consultants in school building construction and in junior and senior high organization from the State Department of Education assembled for the three-day workshop. This workshop considered such questions:

1. Should the school program be for some or all of the children?
2. What guidance services are needed so that every child may realize his full possibilities?
3. What subjects should be taught in the schools so that the student may realize his full possibilities?
4. How may we be sure that those students who intend to go to college will have the basic training they need?
5. Are the students who are not going to college sufficiently trained to assume jobs after they graduate?
6. In what school activities do students participate which develop personality, responsibility, etc?
7. What special building facilities are needed to meet the social needs of students and the community?

Each of these questions was studied by considering: what learning activities would be needed in grades 7 through 12, how closely the present high school facilities met the physical requirements of this program and, what additional school facilities might be needed. Stimulating discussions, attended

by the majority of the Citizens' Committee, the School Board, architects, interested teachers, and the administrators of the system took place the next three evenings.

Work booklet used as guide

As a guide for their discussion they used a work-type booklet which outlined the various subject matter and activity areas which were being offered in secondary schools. They compared the subjects which are being offered with the subjects they wanted for the Selah community. As a result of this discussion the committee and school people developed the following statements of policy.

They wanted all the children of the Selah community, as future voters, to have an opportunity to go to high school and profit from an education. Pupils who are not reached by the school program carry equal powers at the polls with those who are educated.

They agreed that certain basic facts must be known by all citizens and that our public schools were a means of achieving that goal.

Since a junior high school and a senior high school had limited time to train vocationally competent people, broad general courses in vocations were best.

The group concluded that the solid academic subjects were best taught as they were related to present day living, and recognized that this called for classroom areas which were of adequate size, were acoustically treated and were properly located and equipped so that a practical approach to a learning situation could be accomplished.

As a result of this discussion, the Selah school board is proceeding with plans for a junior high school building on a new 32-acre site. The school will reflect many of the points brought out by this Citizens' Committee. It is the general feeling of the administration and the school board that the participation of the community leaders in planning the educational program and plant will assure a stronger and better school program and continued support from the town's interested citizens.



a new program and plant designed so that . . .

Exceptional Children Are No Longer Exceptions!

by ALBERT M. DREYFUSS

Thanks to the farsightedness and sympathetic understanding of District Superintendent Laurel Ruff, the Arden-Carmichael School District in Sacramento, California, will soon boast a program and plant which is quite unique in the history of education. Mr. Ruff has long been interested in the problems of the exceptional child, and has been the moving force engineering the construction of a plant for exceptional children within a school plant.

Making this innovation more admirable than it would normally be is the fact that since 1946 the school population of the district has soared from 600 children to a present 7,000 and is still growing at the rate of approximately 1,000 children per year. The original two-school district has long since been transformed

by the addition of thirteen new schools, with two more scheduled to be opened this year.

The main goal of this special education unit is the education of all types of handicapped children from all parts of the county so that they may fit as well as possible within the normal social structure of our life today. The program might best be described as an integrated program for children between 4 and 18 years of age who are handicapped by complete or partial deafness, complete or partial blindness, severe or partial mental retardation, cerebral palsy, post polio, orthopedic disturbances, etc.

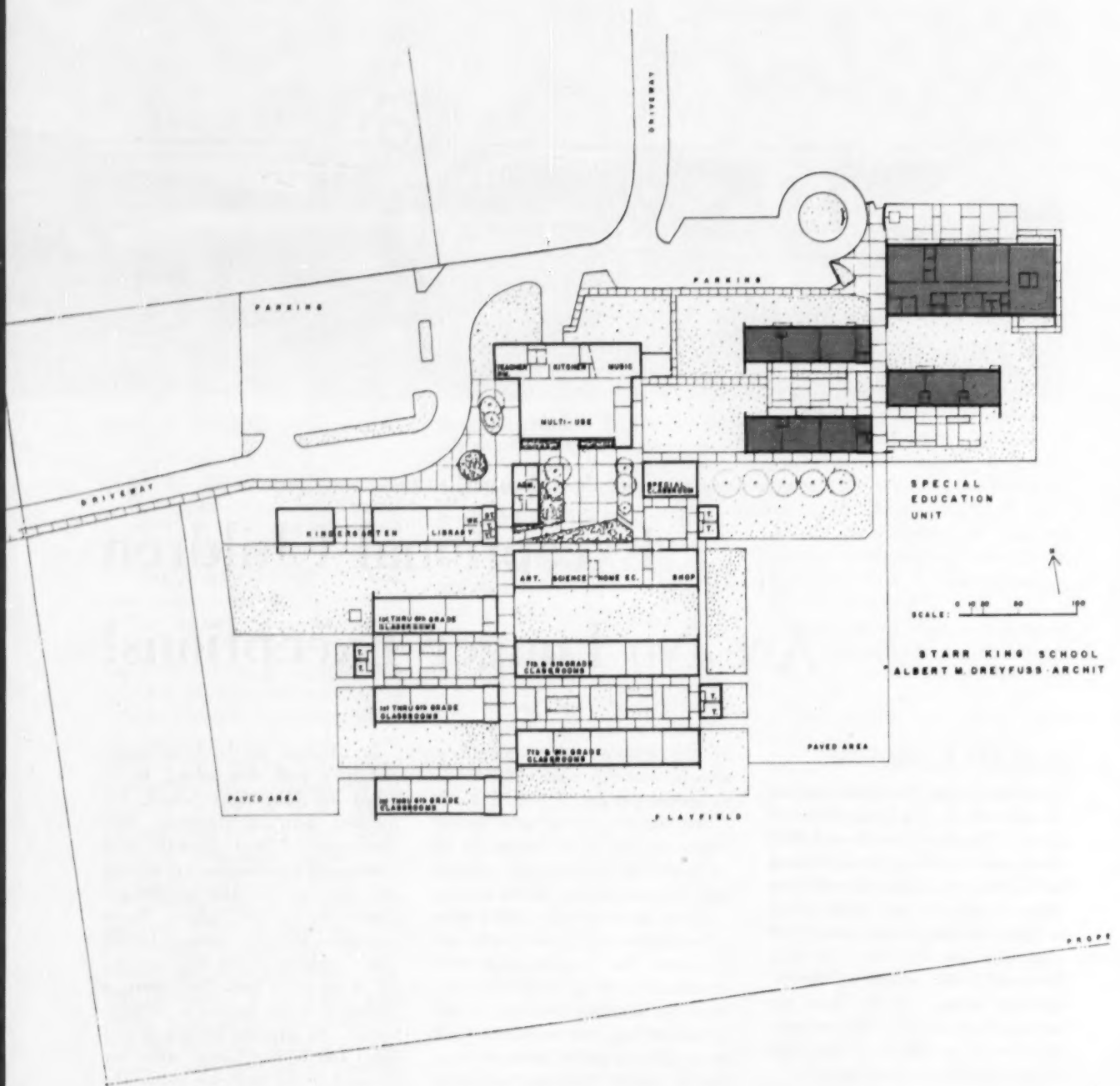
The integration aspect will be accomplished by educating the handicapped children alongside of normal children and wherever possible, *with* the normal children, by giving the exceptional child the opportunity to use regular classrooms, special classrooms (art, science, music), the lunch room, playground and the multipurpose room.

In addition to the handicapped children's unit, this school, to be called the Starr King School, will include: two kindergartens, nine classrooms of first through sixth grades, and ten classrooms of seventh and eighth grades. Also included are classrooms for art, science, home economics, shop and music, a library and a multi-use room large enough for a standard basketball court, a folding platform for use as an auditorium. An adjacent kitchen is provided and folding in-wall tables are included in the multi-use room. The adjacent teachers' room provides for faculty dining as well as committee meetings and other evening uses.

The Special Education unit of the Starr King School will have three classrooms plus therapy rooms for the orthopedically handicapped, one classroom for the blind, one for the partial seeing, two classrooms for the deaf, two classrooms for the partial hearing and three classrooms for severely mentally retarded.

The school will be the major cen-

Mr. Dreyfuss heads the architectural firm in charge of designing the Starr King School.



Above: View of the Starr King School which will have: two kindergartens, nine classrooms of first through sixth grades, ten classrooms of seventh and eighth grades, classrooms for art, science, music, shop, home economics, a library, a multi-use room and a teachers' room. The Special Education unit for the handicapped will include a room each for the blind, partial seeing, deaf, partial hearing, three classrooms for the severely mentally retarded, and three classrooms for the orthopedically handicapped plus therapy rooms.

outdoor assembly area. Those among the handicapped children who are able to conduct themselves within an ordinary cafeteria line will be using the cafeteria along with the normal children. As is distinctly marked on the drawings, the locations of the various handicap groups are planned so that those more likely to use the multi-use room for dining are located nearest to it. The ortho-

Since it is probable that the greatest users of these facilities will be the seventh and eighth grade children in the normal school, it is

0' 5' 10' 20' 30' 40' 50'

Scale

N

BUS COVER

PARKING

PHYSICAL HANDICAPPED CLASSROOM

WAITING

P. H. CLASSROOM

P. H. CLASSROOM

OCCUPATIONAL THERAPY

OFF

W. R.

SPEECH

TEST & COMP.

OFFICE

REST.

REST.

TREAT.

TREAT.

PHYSICAL THERAPY

BLIND CLASSROOM

PARTIAL SEEING CLASSROOM

DEAF CLASSROOM

MECH.

STOR.

MENTALLY RETARDED CLASSROOM

W. R. CLASSROOM

W. R. CLASSROOM

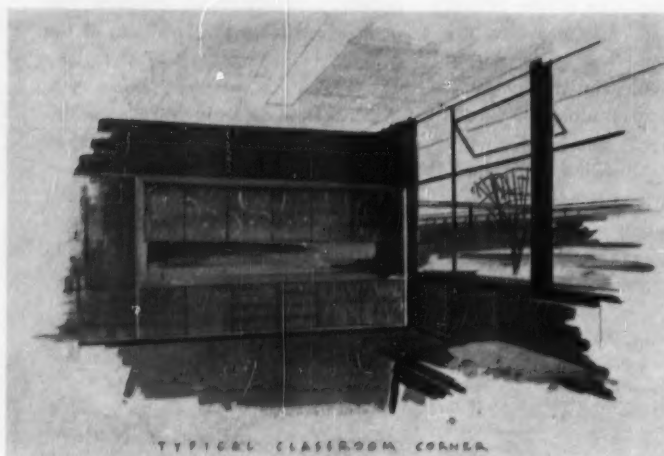
DEAF CLASSROOM

HARD OF HEARING CLASSROOM

HARD OF HEARING CLASSROOM

SPECIAL EDUCATION UNIT OF
STARR KING SCHOOL
ALBERT M. DREYFUSS - ARCHITECT

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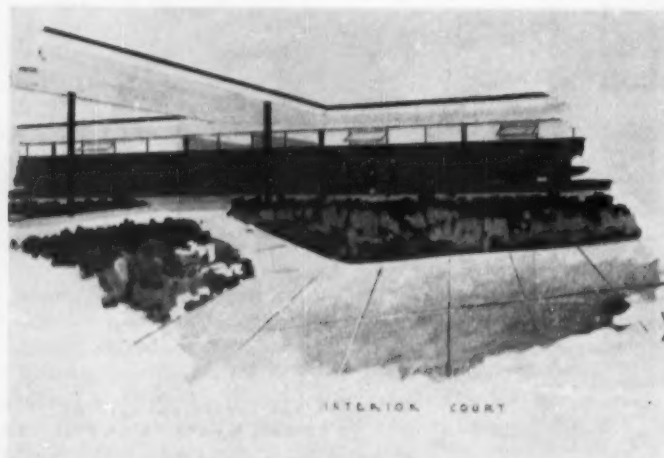


TYPICAL CLASSROOM CORNER

Above: a portion of a typical classroom.

Right: the Starr King School under construction.

Below: view of one of the school's interior courts.



INTERIOR COURT

equally probable that only a few of the older handicapped children will be able to benefit from these facilities. Therefore, those handicapped children who can utilize these special rooms will be able to use them along with the other children.

The playground facilities are also broken down into a private, partial integration and complete integration possibility, with a private play yard for each special handicap, a private play court for each group of handicapped children.

All of this does not exclude the handicapped children from use of the regular grounds within the limits of their capability.

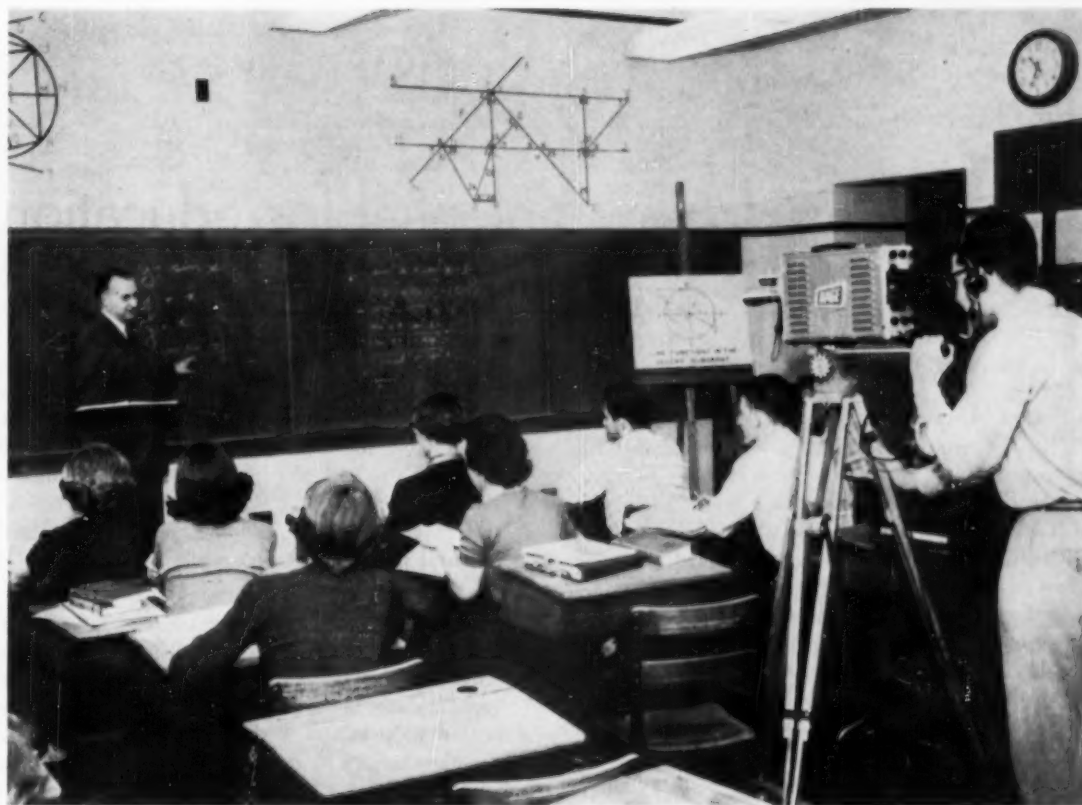
In addition to the facilities mentioned, one special classroom is provided for the slightly mentally retarded. These children are not included as a part of the special education unit but rather are educated at the regular elementary school nearest their home which provides the facility.

The district hopes eventually to provide a classroom for the slightly mentally retarded at several of the existing schools. In the Starr King School, this special classroom is within the normal school area, but is the nearest room to the Special Education Unit.

Educational "team management"

The Starr King School will be staffed by one principal who will be responsible for the entire plant. In addition, there will be a vice-principal in charge of the regular education program and a vice-principal in charge of special education. The vice-principal in charge of special education will have his office located within the special education area, while the others are to be located in the Administration Unit of the regular school. Mr. Joseph Chandler has been selected as the first principal of the new school.

This program, so long in coming, with its philosophy of training both the normal and handicapped child to live together in a truly normal environment seems to remove the "exception" aspect from the term "exceptional children."



Closed-circuit television

a report on how it works, what equipment it requires and where it has been tried

There is keen interest on the part of school administrators and boards of education regarding the use of television by the schools. As is frequently the case with a new gadget, a new process or a new development many claims are proposed. We have heard many claims about the possible uses of television, and particularly closed-circuit television. Undoubtedly, many of the proposals will be found unworkable or at least will have to be modified. And as experience is gained, uses not yet thought of will be found for this electronic wonder. To give school people the benefit of the thinking and experience of those who have studied television, we asked a small group to share what they have learned about closed-circuit television. We requested that they describe the possibilities of its use by schools. In the articles that follow, they present their views and the results of their experiments. They are worthy of our careful study. Undoubtedly, many of our readers will want to request additional information from them.

closed-circuit television

New potential for education

by E. A. HUNGERFORD, Jr.

A FEW YEARS AGO, educational television was understood to mean the operation of educational television broadcasting stations on reserved channels set aside by the Federal Communications Commission. Now a great deal of emphasis has shifted to closed-circuit applications within the educational establishment.

Just what is closed-circuit educational television? From the term, we might think that it is a private circuit viewed only by those for whom the program is intended. This is not necessarily true; educational television for use in the schools is often broadcast over educational television stations. A better definition of closed-circuit television is to be found by considering its aims.

Closed-circuit TV means that some form of televised education or other material is syndicated by whatever means to a special viewing group, usually a captive audience. Educational television broadcasting, on the other hand, is primarily directed to the family viewing group at home.

There are many reasons for the phenomenal growth of closed-circuit educational television: the scarcity of top-quality teachers, for example, at all levels of education, plus the fact that many secondary schools and colleges offer courses in television studio technique in which television equipment is operated.

Closed-circuit TV has been found particularly effective as a teaching device when a small television camera views close at hand a demonstration or experiment and relays this to any number of television screens for the benefit of as many people as should see it. A good example of this is the frequent use of television pickup facilities in hospitals and medical schools for the instruction of students in the art of surgery.

Another, and fortunately the smallest, use of this medium is for the outright surveillance of student groups. One school in Wisconsin uses a TV camera to monitor a study hall with the picture received in the principal's office, thus releasing a study-hall teacher for more important educational tasks. (In this connection, it might be remarked, it matters little whether the TV camera is actually working or not so long as the students think it is.)

There is no need to dwell on the surveillance uses in

education, nor long on the medical uses. Medical people were the first to use closed-circuit television, and due to their particular interests they have usually insisted on color television. Perhaps the finest installation in this country is to be found in the U.S. Army Medical Center, Walter Reed Hospital, Washington, D. C. This is an integrated system and will be used for many phases of medical instruction.

Fund backs experiments

The use of closed-circuit television for actual instruction in the classroom is still pretty much in the experimental stage, but the number of schools reporting experiences with this new medium is steadily increasing. Sparked largely by the financial backing of the Fund for the Advancement of Education, several important experiments have been undertaken—the most extensive one at Pennsylvania State University. A report on this project, entitled "An Investigation of Closed-Circuit Television for Teaching University Courses," is available upon application to the University.

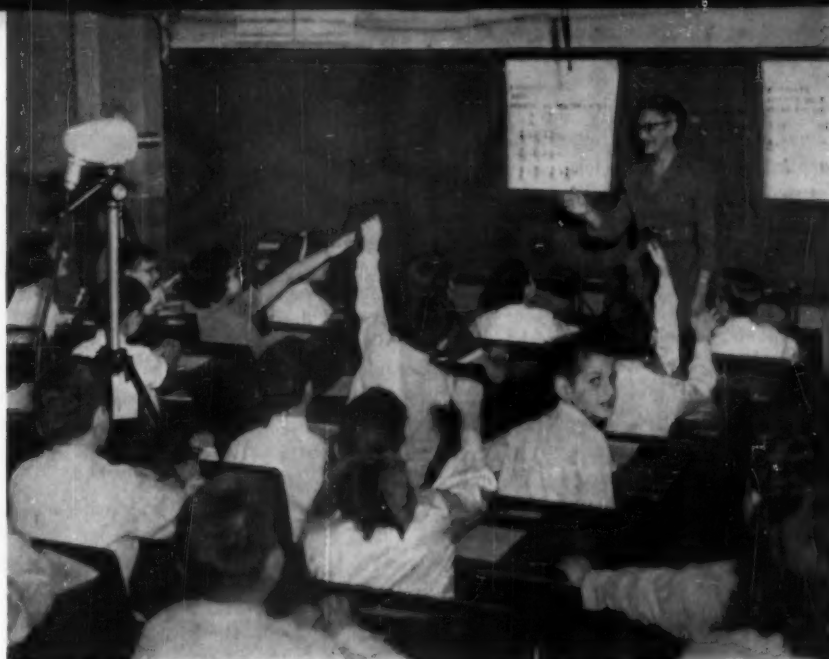
The first course selected for this University experiment was one of the introductory courses offered by the department of chemistry. It was a 5-credit course, consisting of two lectures, one recitation and two laboratory



Engineers in control room operate consoles for closed-circuit TV lecture at N.Y.U.; monitor set in background.

Mr. Hungerford is executive director of the Metropolitan Educational Television Association, Inc., New York City.

Typical originating classroom has 5-pound closed-circuit TV camera mounted on tripod. Focused on the teacher, it transmits picture and sound (picked up by overhead mike) to other rooms for viewing by students or teacher trainees.



periods of three hours each per week. Some 450 students were involved. Only the lecture sessions were handled by television. For purposes of viewing, television cameras were placed in the main lecture room where some 100 students were observing the lecture. The television pickup was fed to four additional rooms, each accommodating about 25 students. It appears from an analysis of the results that the students in the TV receiving classrooms learned just about as much as those in the originating lecture room. It should be pointed out that there was little concession to television requirements; the camera merely viewed the lecture and demonstrations as did the 100 students in the originating lecture hall.

Other courses were tried with a similar technique. These included general psychology and the psychology of marriage. The tests continue.

The obvious advantage of this use of closed-circuit television is to extend the influence of the one person who may be the best lecturer in the department. Television has thus proved to be an expedient way of dealing with large enrollments.

Another experiment of note has been conducted at New York University for the best part of a year. The freshman English department courses in literature and composition were adapted to television with a variety of formats. Here the presentation was given in a television studio and all students were assembled in separate viewing rooms. The experiment has been encouraging in that it was feasible for all of the freshman class to have the benefit of instruction by the several experts in the English department.

Both of these experiments have indicated that while the potential for handling large student groups is very real, educators must exercise caution in using this technique. Only where several hundred students must take the same course does the technique really pay off. With smaller groups, some better use of visual aids with only a minor use of television may be a cheaper solution. In

this connection, a very inexpensive television camera can view small-scale demonstrations for display on strategically located television receivers within the same lecture room—a magnifying glass, so to speak.

Syracuse University makes excellent use of its television studio facilities, both for student instruction in the production phases of television broadcasting and for the actual origination of programs which are fed to the local television transmitter in Syracuse.

In all there are some 100 institutions of higher learning which are making use of closed-circuit television in one way or another. In the fields of elementary and secondary education there is also extensive experimentation.

The Philadelphia school system has a long record of producing television programs on commercial stations for use as supplementary material in the classroom. The New York City Board of Education has also been successful with this technique.

A true test of master teaching is currently underway in Pittsburgh. Test student groups at the fifth-grade elementary level, grouped into classes of twenty, have received the major portion of their instruction in reading, arithmetic and elementary French by viewing television receivers which are tuned to the local educational TV station. At the station, the finest teachers available present the television programs, making use of every facility which television can offer. Local classroom teachers merely prepare the students for the broadcasts and conduct a discussion period after each.

Won't replace teachers

The experiment is still going on, but some general conclusions can be drawn. First, the students appear to enjoy this method. Second, the technique disproves for all time the bugaboo that television will replace the classroom teacher. He is very important in this experiment at Pittsburgh and will continue to be. Perhaps his load is lightened slightly, leaving him greater vitality for the

discussion periods that follow the broadcasts. Thirdly, the local teachers themselves are reported to think well of this experiment because they, too, can check their teaching methods, without embarrassment, against those of the master teacher.

Although the Pittsburgh experiment is broadcast, it is closed-circuit television within our definition. While the general audience can view the programs simultaneously with the classroom students, it is presumed that they will have no more than a passing interest in them because they are not designed for the home audience. Looking ahead, it would seem more appropriate that special stations be operated by the boards of education in our larger city school systems. Such a pattern exists in FM radio as, for example, in New York City where WNYE broadcasts each school day a complete service for optional use by any classroom teacher within the system.

The growth of closed-circuit television in education has only begun. One intriguing possibility yet to be investigated is the distribution of film materials from centrally located projectors by television circuits which reach into every classroom. By prearrangement a teacher could have at his command any film he chose by simply switching on the television receiver and making a call to the basement facility. The pictures would be clearer and the time-consuming task of setting up

and operating a motion picture projector in the classroom could be dispensed with.

Closed-circuit television has placed the educational uses of television in a frame of reference which can be understood. It is for use merely as a tool, which is as it should be.

However, a word of caution is needed. If educational institutions are to restrict their interest in television to the closed-circuit applications within the classrooms of the schools and universities, they run a serious chance of defaulting on an opportunity to extend formal and informal education to the general audience. For the first time in history, it is now possible to bring the finest in education to the family viewing group, using a medium which commercial advertisers find profitable to support to a tune of \$1 billion per year.

This new educational goal must always be kept in sharp focus. We must depend upon the educator to break down the walls of the classroom so that all of us may see inside and participate in the benefits of continuing learning for the rest of our lives. To use television merely for closed-circuit applications within the school is to do less than half the total job. With television broadcasting and closed-circuit installations we have a double device by which we can vastly augment both the extent and effectiveness of present-day education.

closed-circuit television

Facilities, equipment and costs

by **RAYMOND L. GARMAN**

CLOSED-CIRCUIT TELEVISION holds out to educators great relief for their problems of increasing enrollments and inadequate staff. And so these questions come immediately to mind: what facilities and equipment would we need, and how much will an installation cost?

The educational closed-circuit system primarily provides for the use of a television camera or cameras situated in a classroom, lecture hall or studio; these relay pictures of an instructor or a demonstration to monitor sets or receivers in other rooms within the building, in other buildings or in widely separated locations where additional groups of students may

"attend" the session. This extension of the single instructor to multiple classes may be carried out ad infinitum.

Two basic methods for closed-circuit television picture origination are available to the educational institution. The choice of system depends upon the school's facilities, the size and nature of the program to be undertaken and, of course, the funds available.

Vidicon easy to operate

The simplest system uses the so-called vidicon equipment (named after the TV camera's image-producing electron tube). Relatively low in cost, it is portable and can be operated and maintained by faculty members and students who have had some electrical, television or audio-visual experience—their operation supplemented, as required, by one of the several national television service organizations.

This type of system, ranging in cost from \$1000 to

Dr. Garman is vice president and managing director of General Precision Laboratory, Inc., Pleasantville, New York.



Five-pound camera and portable camera control unit—basic units for closed-circuit television put out by General Precision Laboratory Inc.

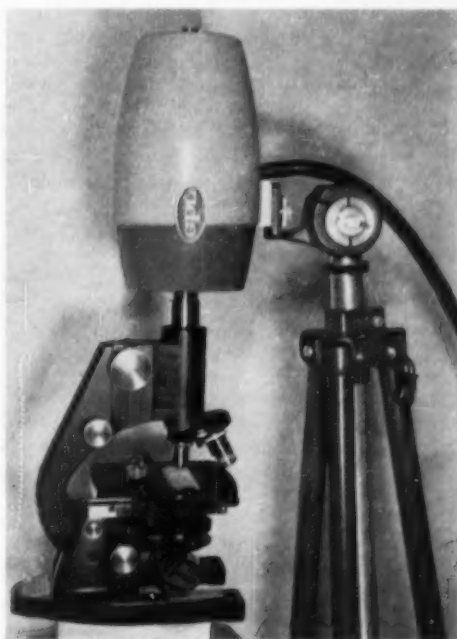
Closed-circuit TV camera with remotely controlled iris, focus and indoor pan and tilt; it permits full 360° camera viewing and 90° tilt.



TV projection system, put out by GPL, provides clear pictures up to 16 feet in width; it is designed for simple installation and operation and is portable.



Port Chester, N.Y., high school science program uses 5-pound camera to view a slide which is projected on 27" screen for simultaneous viewing by several classes.



\$5000, has as its major components an "industrial" type camera with vidicon picture tube, and camera control unit or CCU (sometimes packaged with the camera). These are available with or without electronic viewfinders. The vidicon camera, weighing between 5 and 10 pounds in its simpler form, is small in size and very flexible to operate. It may be set up on a tripod in a classroom and is equipped with a variety of lenses for various fields of vision. It can be operated manually by students.

More than one of these cameras, fixed focused and unattended, can be used, at the originating point and trained on different subjects. Shifting from one to the other is accomplished by a "camera switcher" with push-button selection. This switcher permits the operation of as many as four cameras from a single control unit. Where necessary, switchers themselves may be cascaded to provide selection and control of any number of cameras within a distance of 500 feet from the camera control unit. Since only one camera control unit is needed, the camera switcher introduces a genuine reduction in the cost of multiple camera installations.

New control devices now available allow for remote changing of the iris and focus adjustment of the lens as well as horizontal panning and vertical tilting of the camera. This equipment is slightly more expensive and requires more careful handling. It does, however,

allow for multi-purpose use of a single camera to obtain a variety of views.

The vidicon camera is packaged, in some instances, much like the broadcast studio image orthicon camera. This type of equipment is generally used when the program originates from a central point and the students are removed from the teaching area. Moreover, this vidicon equipment can be linked to a special motion picture projector for transmission of films making individual classroom projection machines unnecessary.

The compactness, simplicity and light weight of vidicon equipment, however, is ideally suited to classroom use; it does not disturb the normal classroom atmosphere and leaves the room free of the clutter of technical personnel and gear. Furthermore, it is sufficiently sensitive to produce satisfactory pictures at ordinary room light levels. Naturally, more light makes possible better pictures with greater depth of focus. Sound is carried over a standard microphone and speaker hookup—ideally the teacher wears an unobtrusive lapel microphone. If two-way communication is desired, permitting students in the viewing classrooms to ask questions, mikes may be suspended from the ceiling. Thus, no permanent installation or change in ordinary schoolroom facilities is demanded other than the coaxial and sound cables leading to the viewing rooms.

Image orthicon for broadcast quality

If the teacher is to be located in a formal studio without the presence of a class and if a picture signal of broadcast quality is sought, consideration should be given to the image orthicon camera (named for the picture tube) and associated commercial studio equipment which is capable of greatly increased operational range. The usual studio consisting of a two-camera image orthicon chain and other items required for this sort of system, including lighting and sound, can be obtained for about \$40,000 to \$60,000 depending on the quality of equipment. Here space is needed for a sound-proofed studio area, a smaller adjacent control room equipped with a glass window for direct observation by the engineers, and a third area for such units as 16mm projectors and film chains.

Studio pickup, therefore, immediately calls for increased facilities, more elaborate equipment and trained personnel. In the studio itself, cameramen are needed to operate the cameras on dollies, sound booms must be directed over the source, more elaborate lighting must be provided and properly handled, and material for the class must be transferred to the studio and removed for the next lecture. With such a system, however, the scope of educational TV is enormously enlarged. If the institution is planning eventually to telecast to the surrounding area in addition to the closed-circuit, this system represents a good investment.

Transmission by coaxial cable

Transmission of the closed-circuit television image is usually made via inexpensive coaxial cable (about the

Sources for Further Information

Joint Council on Educational Television, Washington, D.C. (source of information on developments over the country).

Pennsylvania State University, Instructional Film Research Program, University Park, Pennsylvania (most exhaustive research on the effectiveness of closed-circuit instruction).

National Association of Educational Broadcasters, Urbana, Illinois (provides consultation on equipment, personnel and budget for closed-circuit installations; workshops for training personnel; publications).

American Council on Education, Committee on Television, Washington, D.C. (publications: "Closed-Circuit TV Installations at Educational Institutions;" conference proceedings).

University of Indiana, Audio-Visual Center, Division of Adult Education and Public Services, Bloomington, Indiana (repository of screened materials suitable for schools).

Educational Television and Radio Center, Ann Arbor, Michigan (consultation on development of materials for use on educational stations).

thickness of a lead pencil) laid between the camera control unit and monitor locations. Video signal transmission from the CCU, which may be received by a monitor unit or by a modified TV receiver of the commercial type, produces the best quality picture. It requires amplification for distances over 1000 feet.

A signal similar to that used in commercial telecasting (radio frequency signal—RF) can be supplied by the CCU for transmission over longer distances—as much as a mile under optimum conditions—without boosting. This signal can be picked up by the standard TV receiver from the coaxial cable. If the distances concerned range from several miles up to several thousand miles, a telephone company's common carrier facilities can be leased for the purpose. Another method is the microwave link for distances of approximately 30 miles. This is a short-wave radio frequency transmitter working over line-of-sight only, and requires sending and receiving gear on the rooftops of the originating and reception points. With equipment now under development, the transmitting system can simultaneously radiate to

several receiving locations making it unnecessary to duplicate this gear at the originating point.

Reception and projection

For viewing the closed-circuit signal, either by monitor or TV receiver, screens up to 27 inches are available depending on the size of the audience. However, educators are finding distinct advantages, when groups of 100 or more are watching, in large screen projections which throw pictures up to 9 by 12 feet and larger on wall size screens to provide all with a closeup view.

This projection television system also has the ability of picking up off-the-air educational or commercial broadcasts of special events which may be of interest to large numbers of students.

Closed-circuit television is a highly adaptable teaching tool which, imaginatively used, can greatly aid the teacher's effectiveness, permit him to utilize more fully his teaching time and facilities, and widen the number of students who may benefit from the most expert instruction available.

closed-circuit television

Report on school experiments

by HARVEY ZORBAUGH

LAST SEPTEMBER the Washington Square College of New York University embarked on an experiment in teaching English composition and literature by closed-circuit television. Recently homecoming alumni jammed the ten viewing rooms to watch. At the ensuing cocktail party, it was the sole topic of conversation, debated with the fervor of a new atomic weapon.

Few events have precipitated the educational controversy that has the intrusion of television into the halls of learning. At the one extreme are the enthusiasts who envision the education of the future as purveyed by kinescope recordings of an elite of master teachers. At the other are those who see in instruction via television the final triumph of technology over man's individuality.

Meantime, experiments with closed-circuit instruction are spreading so rapidly it is impossible to keep up with them. A recent conference on instruction by television

called by the American Council on Education brought together more than 100 men and women from every part of the country—college deans, audio-visual supervisors, school architects, equipment manufacturers, leaders in adult education and teachers—all eager to share experiences and catch up on developments. It has been a rare week this year at New York University that has not brought one to a dozen visitors to observe its experiment.

What will be the outcome? How much of this experiment will prove fruitful? What will the practical role of closed-circuit instruction in education prove to be?

Teaches basics effectively

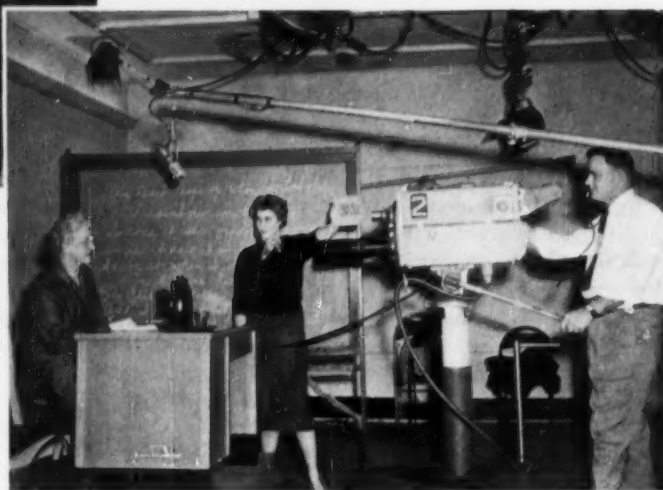
The evidence already indicates that facts, principles and basic motor skills can be taught to young adults as effectively via television as with the instructor facing students in the classroom. The Navy, the United States Army Signal Corps, Pennsylvania State University, the University of Houston and New York University, among others, have found this to be true.

In view of the coming "battle of the bulge," with competent instruction short and funds tight, this is a practical consideration for our colleges. Much of the required

Dr. Zorbaugh is executive officer of the communication arts group at New York University.



New York University experiment in teaching English literature by closed-circuit TV. Lecture originates in television studio (right); image orthicon TV camera and sound boom relay lecture to a group of students in one of several viewing rooms (above).



core of general education is already taught by the lecture or lecture-demonstration method, as are many elective and advanced courses in larger universities. Such instruction can be extended via television to indefinite numbers of students. Using the best teachers, the average quality of instruction may well be improved. As greater numbers of students are involved, it is probable there will be a net saving in instructional costs.

Certainly closed-circuit instruction is one way to meet the impending instructional crisis in higher education; it seems that in the end it will permanently prove the best medium for a considerable part of instruction.

There are areas in which television is undoubtedly improving the quality of instruction. Science, medicine and dentistry are illustrations. Large screen television is an unrivalled medium for helping students to see how things occur, how things are done.

The report on a recent survey on television in American dental schools, conducted by the American Dental Association, pointed out: "In the past . . . groups of only five or six students would cluster around a table or patient to see first hand the methods described by the lecturer. This meant the instructor would have to repeat the demonstration as many as twenty times to accommodate all students in a course. Now through the medium of closed-circuit television an entire class of 90 or 100 students can watch the demonstration at a time, thereby saving as much as three week's time for one instructor."

More important, each of the hundred students has a clearer view than any one of the five or six had when clustered about the instructor. Here television is used

as an audio-visual aid to improve instruction. With the advent of color it is sure to have wide use in the sciences and training for related professions.

A number of schools of education, including those of New York University and of the University of Minnesota, are considering closed-circuit television to help improve the quality of demonstration teaching. New York University is proposing to build a model classroom with one-way-vision glass walls within a television studio. The master teacher's procedures with his class would be televised through the walls of the classroom and relayed to a series of viewing rooms. In each room would be a critic teacher who, immediately after the demonstration, would discuss it with the students. This technique might materially improve the quality of demonstration teaching; and should prove economically practical as compared to the cost of operating a demonstration school.

Needs imaginative use

We are only beginning to explore the unique potentialities of television for improving instruction. Television may well prove capable of improving instruction in a wide variety of courses—given experienced and imaginative direction, the use of documentary and dramatic techniques, and full use of the wide variety of auditory and visual materials, normally cumbersome but easily handled on television, such as photographs, film clips, charts, models, dioramas, records and tapes.

Adult education is a considerable part of the program of many universities, particularly in the land-grant colleges and state universities. Here television promises

to be a valuable tool in college extension work. A state agricultural agent recently remarked that in a few hours on television he had been able to reach more farmers, and to reach them more effectively, than in months of driving about from farm to farm. He was speaking of broadcast television. But the same effect can be achieved with a closed-circuit through the use of a kinescope recorder or the new Ampex tape recorder.

Variety cites Michigan U.

In making awards to educational stations, an April issue of *Variety* gave a special citation to the University of Michigan. Michigan has no broadcast facilities, but kinescope recordings of its educational programs are appearing regularly on a chain of more than twenty commercial stations across the country from Seattle to New York.

Everywhere there are adults who are eager to learn, many of them to learn the things we term academic and traditionally teach in our colleges. Many of them are eager for credit, as Western Reserve and Houston among others have discovered. Any university with a closed-circuit and kinescope recorder, cooperating with local commercial or educational stations in its community, can afford them the opportunity to learn.

Most of the experimenting with closed-circuit instruction to date has been in colleges and universities. But many high schools are planning to embark on experiments. Already the Port Chester, New York, high school is using a closed-circuit as an audio-visual aid to enlarge and clarify demonstrations in its science classes and to extend those classes to other groups of students in viewing rooms. The Evanston, Illinois, high school is currently experimenting with closed-circuit, and next year

plans a full scale test of its usefulness on the secondary level.

A person in Pittsburgh can do his entire work for a high school certificate by television—in this case broadcast television; and languages are being taught there to elementary school children.

School architects report that boards of education increasingly are inquiring as to the feasibility and cost of including conduits for closed-circuit cables in new buildings, elementary as well as secondary. How far down toward the beginnings of the formal educational process will television permeate? How widely will its use prove educationally sound?

This brings us squarely up against the problem of the role of the teacher. There are those who see in television the spectre of technological unemployment for teachers. Their alarm I do not share. Education is more than the transmission of facts, principles and motor skills. It is also guidance in social and emotional development, in growth in maturity, in the acquisition of healthy ways of dealing with the problems of living, in the clarification of ideas about the world, in commitment to values. All this takes place in interpersonal relationships, in which good teachers always must play a critical role. The farther down in the educational process we go, the more true this is.

But it is time those of us who teach gave up our reluctance to use the fruits of technology in our teaching. In television, technology has given us a medium which is having a pervasive influence on every aspect of our life, social, political and economic. It behooves us to explore it, to learn whether perchance it may not in many ways enable us to do better the job it is ours to do.

closed-circuit television



The Schenectady experiment

by **MICHAEL J. AMBROSINO**

Mr. Ambrosino is television coordinator of the Schenectady, New York, Public Schools' closed-circuit television project.

July, 1956

"WHAT SHALL WE DO with television?" has been asked often by educators across the country the last few years. Some, still smarting from difficulties with educational radio, were content to "leave it to the professionals." Others, overwhelmed with the high cost of equipment and manifold production problems, were content to wait and see what other schools would do.

The need for knowledge of television is an urgent one. All over the nation we are working, testing and analyzing this medium.

In January, a grant of \$10,000 was awarded to the

Schenectady Public School System by the Fund for Advancement of Education. The grant is in support of an experimental closed-circuit television project that began February 1 of this year. The money covered expenses for the research and has been used for personnel, special services and program materials. Equipment was expected to come from other sources.

Is it feasible?

It is the intention of the project to determine if it is economically practicable for future school construction to include closed-circuit television facilities.

The plan is not only to help alleviate the teacher shortage, but to also vitalize subject matter and possibly create new organizational concepts of teaching.

This is a pilot project in which we hope to gain the necessary experience to carry out an extensive program which will start in the fall of 1956. Although we will be able to obtain results from our evaluation of the project, we are regarding them as merely indications and not facts. Compiling this information now will give us a distinct advantage with future experimentation. We can begin our second project as a controlled experiment, without loss of time due to lack of experience with the equipment or the techniques of televised education.

The personnel involved in the project consists of the television coordinator, a secretary, a half-time assistant (the director of research for the Schenectady Public Schools has been released half-time for this experiment), and a teacher aid.

Select classes and teleteachers

The first job was to select the actual classes in the chosen curricular areas of language, mathematics, English and science. Math 11 is a subject combining the elements of intermediate algebra and trigonometry for eleventh-grade pupils. Edward Sherley, head of the math depart-

ment, was teaching one of two such classes held simultaneously and agreed to be the "teleteacher."

Conversational French had been newly added to the Mont Pleasant High School curriculum. Students were selected from a volunteer group and are taught by Mrs. Anne Slack. Mrs. Slack has been teaching French over a local television station to grades 3-5 for the past three years. These programs are presented by the Schenectady Public School System through the Mohawk Hudson Council on Educational Television which produces ten half-hour educational programs a week.

Three classes of English 10 were being instructed during the same period and arrangements were made to have them moved to the television-equipped rooms for a four-week experiment. Robert Burns was designated as teleteacher. After several weeks of telecasting we planned to add a six-week chemistry experiment to the project. Joseph Collins' first-period chemistry class was supplemented by four students from his second-period class and, after being equated, the group became two classes.

We were now ready to begin.

Work with Hi-Fi Center

Equipment arrangements were made through the Hi-Fidelity Center of Albany, New York, which engineered and installed the project equipment and, along with the coordinator, has been constantly experimenting and modifying to obtain the best technical results.

We are using two Dage vidicon cameras in each television classroom. Each has a radio frequency output which is fed through a camera selector and then on to the remote receivers.

It was our intention to make the television equipment as unobtrusive as possible. The cameras and other equipment are kept within an area at the back of the room. Close-ups are attained by long focal length lenses.

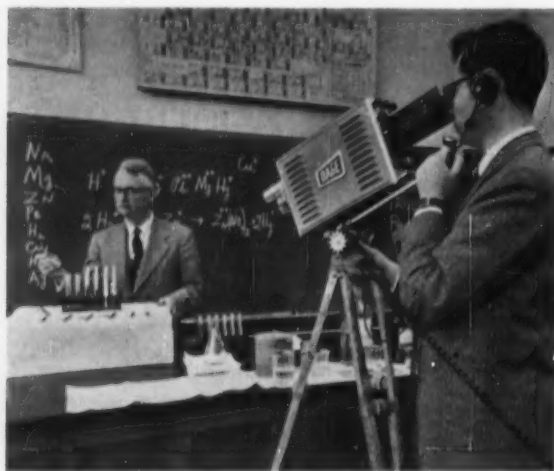
When we had to make a decision about lighting, we again adhered to this intention. The regular fluorescent lighting units in the televising rooms give us high basic lighting. With the addition of par 38 spots, placed for key and back lighting, a good lighting pattern was achieved. These extra lights were installed where they would not interfere with the tone of the classroom and yet give us the amount and blending of light required.

Teacher wears mike

Our sound transmission starts with a dynamic microphone worn by the teacher. Sound is fed through a hi-fidelity amplifier to 8-inch enclosed speakers mounted at the top of the television receivers.

Since participation is the heart of teaching, we insured its instantaneous use in our television project. Horn type speaker-microphones were installed in the two remote classrooms which fed through an amplifier out to an 8-inch speaker mounted in the front of the televising classroom. The teacher was able to quiz the students and obtain immediate response through this system.

The daily operation of the project is aided immeasurably by the assistance of volunteer student technicians.



Schenectady chemistry teacher Collins checks visuals for class experiment with TV coordinator Ambrosino (right).



Mrs. Slack, Schenectady's French teleteacher, leads class in a French song (right) as fellow students in separate room follow the relayed image (above).



Those chosen were put through an extensive training period by the coordinator and alternate between the positions of camera man and assistant director.

Now let me briefly describe some of our problems and the methods used to solve them.

A teacher determines the pace of his teaching partly by the response of his class. When he is teaching three classes, two of which see him on a television screen, he can see the response of only the class in the room with him. Although he can hear questions through the talk-back system, if the other two classes differ in ability or development, the pacing will be unsatisfactory for them. We found that we had to group the classes so that the teacher could maintain similar rapport with all three.

The teacher is given almost complete control of the class period. Certain restrictions are placed upon him because of the requirements of television but these should be kept to a minimum. He can walk where ever he wishes and use any portion of the classroom, except the window area where the bright sunlight would adversely affect the televised image.

His chalkboard technique must be watched carefully. It is not how large he writes but how clearly. A well written equation only 2 inches high is much better than large scrawled handwriting because both have to fit within the same 21-inch television screen. We can move the camera forward and get a closer shot, or change lenses and so magnify the good example and fill the screen with clear legible material.

Visual aids on 3x4 ratio

The best results are achieved when chalkboard writing is confined to a 3x4 ratio (3 high and 4 wide). Since the television picture is a 3x4 ratio, anything else would be a waste of space. A visual aid can be 3 inches by 4 inches

or 6 feet by 3 feet; both can fill the television screen by manipulation of the camera or changing lenses.

Special visual aids were made for the math section to help the teaching of graphs and trig functions of sin, cos, etc. The line width varied from $\frac{1}{8}$ to $\frac{1}{16}$ of an inch on grey composition board and all the material was clearly visible on the television screen.

On other charts we utilized foto-type—printed letters with white background that can easily be torn off a pack and assembled into words or entire sentences. Style 19144 has clear well spaced letters, $1\frac{1}{2}$ inches high, and gave us the best results.

Color by association

The value of television's ability to put everyone in the front row is being tested in the chemistry classes. The chemistry experiments have shown we can give the remote rooms a superior account of the procedure. Those that depend upon color are more difficult, but planned methods of association between the experiment and charts where the color is printed out will be helpful.

Sound transmission will be a difficulty as long as we work in rooms that were designed before school architects became sound conscious. High ceilings, hard plaster walls, marble floors, and slate chalkboards are extremely detrimental to superior sound reproduction. Drapes to deaden the rooms have been used and have helped somewhat, but acoustical treatment may be necessary if this is to continue upon a large scale.

The experiment we are carrying out is of great interest to all of us. We are gaining the experience necessary to go on and make an extensive experiment next year. That experiment, we hope, will supply us with more answers to the question, "What shall we do with television."

Council Plans Aim For Citizen Action

NEW YORK—The National Citizens Council for Better Schools has expanded its program to stimulate citizens interested in their schools to play more active roles in their improvement.

One of the main goals of the Council will be to train citizens for work and leadership in community activities.

Several projects will be set up in various fields of communication, aimed at helping laymen improve their schools.

A distribution center for films, recordings and scripts will be established. The Council is working with the Education Writers Association to improve educational reporting throughout the country on a regional basis.

Also planned is more research on special subjects.

State school improvement groups will receive help from the Council in communications, research, coordination, service and training.

National headquarters will make results of projects readily available to the state groups, and will set up a clearing house of information between the two.

There will be four regional offices—Denver, Minneapolis, Louisville and New York.

Toy, Gottshall Head Reorganized NCCBS

NEW YORK—Several reorganization moves have been made by the National Citizens Council for Better Schools, designed to facilitate the program of the new organization.

The Citizens Council, successor to the National Citizens Commission for the Public Schools, will have as its chairman Ralph K. Gottshall, president, Atlas Powder Co. Mr. Gott-

Architect, educator meet:

Continue Progress in School Design, Van Nuys Tells Building Conference

According to Clarence S. Stein, 1956 recipient of the AIA gold medal, progress in school design has been a pacesetter in the construction field for the past ten years, New Jersey Architect Jay C. Van Nuys told an audience at one of three school building conferences held recently.

Speaking before educators, school board members, architects, businessmen, graduate students of school administration and laymen at Teachers College, Columbia University, on May 28, 29 and 31, Mr. Van Nuys urged school planners of today to continue searching vigorously for better educational buildings designed to inspire greater human achievement.

The conference at Teachers College was one of three on the subject

shall had been serving as acting Council chairman.

Henry Toy, Jr., who had been executive director of the Council, has been elected to the new post of president.

The Council has also set up an advisory board of "laymen who have made outstanding contributions to education." Roy E. Larsen, president, Time, Inc., and former chairman of the National Citizens Commission, is chairman.

Other members are James Bryant Conant, ambassador to Germany and former president, Harvard University; Neil H. McElroy, president, Procter & Gamble, Inc., and chairman, Committee for the White House Conference on Education; and Beardsley Ruml, author of the pay-as-you-go income tax plan and former trustee of the National Citizens Commission.

The following have been elected regional chairmen: North Atlantic, Edward R. Eastman, Ithaca, N. Y.; Southern, Mrs. Edward Reisman, Jr., Chattanooga, Tenn.; Midwestern, O. H. Roberts, Jr., Evansville, Ind.; Western, John Armer, Phoenix, Ariz.

of school buildings. The others were held at the University of Chicago, May 1-3 and the University of Pittsburgh, May 14-17.

Nearly 3,000 persons from 23 states participated in the three conferences. The most recent thoughts on current and emerging educational programs, and the best ways to house them were analyzed by scores of America's foremost educational planners and school building specialists, who served as consultants.

Schools on exhibit

The conferences featured an exhibit representing 150 outstanding schools built during 1955. Nearly 250 architectural mounts were displayed by THE SCHOOL EXECUTIVE, conference co-sponsor.

These designs were submitted by 118 architectural firms to the 1955 Competition for Better School Design, conducted by the magazine (see May issue, page 45).

The exhibits, which were open to the public, were viewed by school officials, specialists, and laymen.

"To build a school is to make substantial and enduring commitments, financial and philosophical," John H. Fischer, Baltimore's superintendent of schools, reminded conferees at Chicago.

Design, therefore, must take into account function as well as economy, he added.

Speaking before the Pittsburgh

meeting later in the month, Dr. Fischer urged that modern design reflect the changes already affecting American communities and schools, and recognized the certainty of continued changes in the future.

Beware of standardization

Standardization of school buildings is not the answer to individual school and community needs, Educational Consultant N. L. Engelhardt, Sr. told Pittsburgh conferees.

"It is usually prompted by a spurious concept of economy vs. function," he declared.

In an effort to profit from the experience of others, a community must protect itself from shortsightedly accepting a school design copy which would be locally inappropriate, the conferees agreed. It is also essential, they felt, that architects know the objectives of the school and the nature of the program, which should be reduced to writing.

In planning for the school that "ought to be," the participants at all three Conferences analyzed the Random Falls Idea. This concept of the secondary school of the future ap-



Architect Vincent G. Kling (r.) was one of five top award winners receiving plaque in School Executive's Fifth Annual Competition for Better School Design. Presenting him with plaque during Chicago school building conference is Donald M. Stevenson, president, Illinois Association of School Boards.

peared in *THE SCHOOL EXECUTIVE* of March, 1956 (see page 47).

The ideas expressed in that issue by Superintendent Archibald B. Shaw of Scarsdale, N. Y., as well as the original drawings of the school plant implications by Archi-

tect John Lyon Reid of San Francisco, were studied in detail.

Build flexible schools

Since school programs face inevitable change, flexibility will characterize good schools of the future, a challenge to architectural and educational ingenuity, according to Texas architect W. W. Caudill at the Chicago meeting.

Even existing school buildings are being modified, frequently with great difficulty, to meet changing conditions, he said. Up to 50 percent of the partitions have been moved in school buildings of some communities during the past few years, according to a survey reported by Mr. Caudill.

Uniform classroom size in the high school is obsolete, the conferees were told. Easy re-arrangement must be possible in order to accommodate varied activities by varying size groups.

The uncertainties of program requirements for the school of tomorrow will tax the imagination of our best brains, with or without a crystal ball, declared Consultant Walter D. Cocking, editor, *THE SCHOOL EXECUTIVE*.

"Basic to the design of educational buildings is the need to know and understand the relatively unchanging nature and characteristics of youth," he said.

Attention was given to the increasing quality of available building materials and mechanical systems. Architect Lawrence B. Perkins of Chicago commented on the importance of materials.

"Concern for people"

He also emphasized that "the major concern is for people." The environment for living and learning he said, can be designed by the skillful architect to reduce tensions and lift morale of the occupants.

Each conference program was planned by its own regional committee representing the host university as well as educational, architectural, and allied organizations of the area. General sessions, small group meetings, clinics on local com-

munity problems, exhibits, and slides were featured in all cases.

The programs differed at the three universities. Each planning committee selected topics related to school plant design based on the needs of its own region. Altogether over 200 educational consultants and school building specialists participated as resource people.

Chicago and Random Falls

At the University of Chicago, James G. Harlow, associate professor of education, served as chairman of the planning group, assisted by H. T.



Maurice J. Thomas, professor of education, U. of Pittsburgh, and head of the Tri-State Area School Study Council, points out interesting feature in architectural exhibit mount to Guy Harriger, assistant superintendent of schools, Butler, Pa., at Pittsburgh conference.

James and Herbert W. Schooling of the university's department of education.

The Chicago program included a full day devoted to study of the school of the future and the Random Falls Idea. Superintendent Fischer presented the educator's view, followed by Architect Reid's.

The conference then subdivided into ten groups to further analyze the proposal and to frame questions subsequently answered by a panel at the day's concluding general session.

The second day's work was focused on the best current designs of schools. Controlling concepts were explained by Architect W. W. Caudill. A look at some examples of the best current design was provided through slides shown and explained by Architect Lee Cochran of Perkins and Will, Chicago architects. The

role of the architect and of the educator, key members of the school building team, was examined for the Chicago conference by Architect Philip Will Jr., and School Superintendent V. E. Klontz of Janesville, Wis.

Nine clinics on different phases of school plant planning concluded the Chicago conference. Each group had the consultant service of specialists in the areas under study.

Topics included construction materials and service systems, lighting and color, audio-visual and TV services, site, finance, and community planning, as well as design for pupil services and instruction.

3 sponsors at Pittsburgh

The University of Pittsburgh's conference was co-sponsored by its



Connecticut Architect Warren H. Ashley designs a campus-type school for participants at the Teachers College conference.

School of Education, the Tri-State Area School Study Council and THE SCHOOL EXECUTIVE.

The planning committee was headed by Maurice J. Thomas and assisted by Richard W. DeRemer, both of the university faculty. Several organizations of educators, architects and citizens were represented on the planning body.

Over a four day period, the Pittsburgh conference covered 20 topics on planning elementary and secondary school buildings. An added feature was a special session devoted to the role of state government in schoolhouse construction.

Laymen represented

Laymen were well represented in the Pittsburgh sessions. PTA groups and regional citizens committees for schools participated throughout.

The exhibits at Pittsburgh were supplemented by mounts and models of schools built recently in Pennsylvania communities.

At TC, 70 experts

The three-day conference at Teachers College, Columbia University contained a broad range of vital subjects on educational program and building design needs.

A group of 70 specialists served as consultants. State department of education representatives from New York, New Jersey and Connecticut were available for private clinics with school groups concerned about building projects in their communities.

Conference Chairman Henry H. Linn and his associate Norton L. Beach, professors at Teachers College, were assisted by school superintendents and architects from several states in planning the meeting.

Trends affecting school design were examined in sessions dealing with emerging educational needs of school and community.

Topics included the secondary school program and plant of the future, classroom equipment, color planning, site selection, economies in construction, "cottage" classrooms, temporary buildings, prefabricated schools, citizens' aid, college and adult education facilities.

New plant research center

At the luncheon on the final conference day, Hollis L. Caswell, president of Teachers College, announced the formation of a national advisory committee to guide formation of a new center for research on school buildings at Teachers College.

This committee is headed by Walter D. Cocking, and has a membership of prominent educators and school architects.

The only justification for a school building is to provide an environment to serve pupils and staff engaged in educational programs, conferees at all three meetings agreed.

America today has the know-how and resources for planning, designing and providing such schools, they concluded.

\$2 Million Granted For Higher Ed Study

NEW YORK—President Eisenhower's Committee on Higher Education is not the only group preparing to study closely the issues and needs before the nation's colleges and universities.

The Carnegie Foundation has granted almost \$2 million to finance studies at The University of California and Teachers College of Columbia University.

The two research centers, which have been called the first major establishments of their kind, will study in particular the problem of meeting huge enrollments expected in the next decade, as well as other issues facing higher education.

A third grant of \$375,000 to the American Council on Education in Washington will provide for the creation of an office of statistical information and research on higher education.

Vital national issue

"The health of our colleges and universities is vital to the future of America," said John W. Gardner, president of Carnegie Corporation.

"American higher education is facing tremendous growth and tremendous problems. We must be prepared to meet these problems intelligently."

The Institute of Higher Education at the University of California will be under the direction of Thomas R. McConnell, of the School of Education faculty.

Professor McConnell, a former dean at the University of Minnesota, was president of the University of Buffalo from 1950-1954. He was a member of President Truman's Commission on Higher Education.

Among other things, the new Institute plans to undertake studies of the role of junior colleges in higher education, state patterns of organizing higher education and ways in which colleges and universities can better meet the diversified needs of their students.

The Institute for the Study of Higher Education at Teachers Col-

lege, Columbia University, will be guided by Earl J. McGrath, former Commissioner of Education.

Dr. McGrath will leave his present post as president of the University of Kansas City to head the new program. He was formerly a professor at the University of Chicago, and dean at the State University of Iowa.

One of the major projects to be undertaken by the new Institute at Teachers College will be a nationwide study of the status of the liberal arts in American higher education and the relation between the liberal arts and the various forms of technical, professional, and specialized education.

The study will undertake to discover under what conditions the survival of the liberal arts may be ensured in a time of increasing emphasis on specialist education.

The Office for Statistical Information and Research, to be established by the American Council on Education in Washington, will devote itself to the task of improving educational statistics at a time when higher education has become a problem of national importance.

Commenting on this grant, President Gardner of Carnegie Corporation declared that "American higher education has become an enterprise of vast size and scope.

"Successful planning cannot be carried out unless the colleges and universities have access to the same quality of statistical information which is available in other areas of our national life such as business."

Theisen to Retire After 34 Years in Milwaukee

MILWAUKEE, Wis.—William W. Theisen, who has served as assistant superintendent in the public schools here since 1922, will retire this year.

In Milwaukee, he has specialized in budget, curriculum, school building, guidance, publications and public relations, serving as superintendent *pro tempore* for one year.

Dr. Theisen is president of the National Council on Schoolhouse Construction, and a past president of the American Educational Research Association.

Public relations via video:

Schools and Organizations Use TV To Tell Public About Education

As educators and friends of education work hard to win citizen understanding and support for school programs and needs, the newest of the mass media of communication—television—has not been ignored as a public relations aid.

More and more school systems and educational organizations—lay and professional—are telling the story of the schools to the people via the video channels.

One of the most ambitious of these educational presentations is "Progress," a half-hour, Saturday afternoon, weekly series, telecast over WRCV-TV.

Sponsored by the New Jersey and Pennsylvania Education Associations, "Progress" is produced by William D. Hayward, assistant director for Radio and Television for the New Jersey Association and by Martha Gable, director of educational programming for Philadelphia schools.

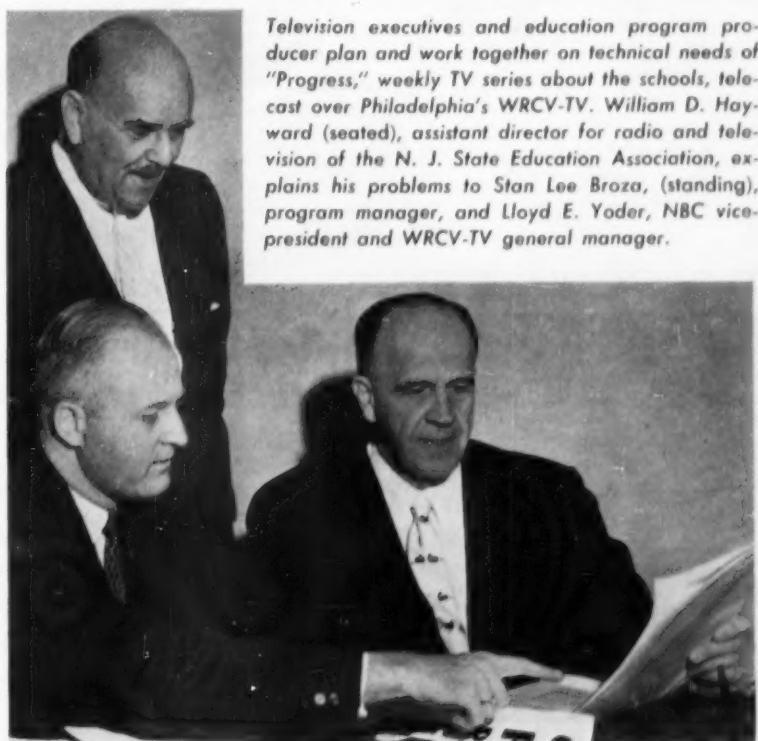
The two associations underwrote the program to the extent of \$500, with the TV station contributing a director, film footage, technical help, and studio space.

The series' format varies from

narration and interview to drama; from film to live action. Much use is made of "role playing," removing the need for professional actors and for detailed scripts.

Subjects covered in the series touch on all aspects of education—from school building, teacher shortage, instructional program and finance to adult education, health, playing football and governors' reports.

Unusual visual means are often employed to drive the point across. During the program on the teacher shortage, for example, a live stork took his place before the cameras to emphasize the fact that the rising birth rate was the main reason for

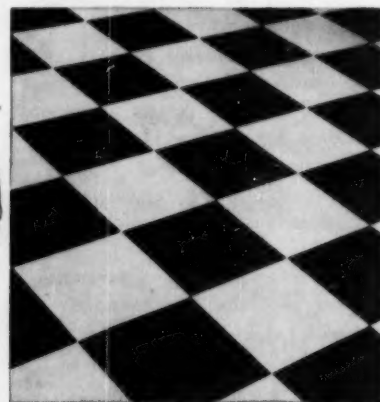


Television executives and education program producer plan and work together on technical needs of "Progress," weekly TV series about the schools, telecast over Philadelphia's WRCV-TV. William D. Hayward (seated), assistant director for radio and television of the N. J. State Education Association, explains his problems to Stan Lee Broza, (standing), program manager, and Lloyd E. Yoder, NBC vice-president and WRCV-TV general manager.



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Performance of the NEW No. 1 Floor Machine line *pays off fast* in dollars saved for management, effort saved for workers! These all-new AMERICAN Machines are completely engineered to provide amazing operating ease and versatility in maintaining all floors and rugs! Years-ahead features and American dependability mean maximum performance and minimum upkeep.

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SPOTLIGHT

the shortage.

Uncoached, and quite luckily, Mr. Stork swallowed his adam's apple when teachers salaries were mentioned!

According to Co-Producer Hayward, TV station personnel have spared no efforts to make the show a success.

The series completed its first 34 weeks of telecasting this spring, and WRCV has already indicated that "Progress" is expected to return to the air again next fall.

In Wilmington, Del., there is another educational series, now in its seventh year.

This one, named "Schools in Action," is sponsored by the Wilmington Public Schools, with John L. Hunt, coordinator of school-community relations, serving as coordinator and producer.

"Schools in Action" is a half-hour show, presented every Sunday for the past six years at either 1:30 or 2:00 p.m., first on WDEL-TV, an NBC affiliate, and then on WFFH-TV, independent with some Dumont Network hookups, WDEL's successor.

According to Mr. Hunt, "When we started our series every program came from the Wilmington schools. Two years ago we divided up the time with the special school districts of New Castle County.

"We first used the title 'School Report.' When the suburbanites joined us, we changed it to 'Schools in Action.'"

The format, however, has always been similar, Mr. Hunt reports.

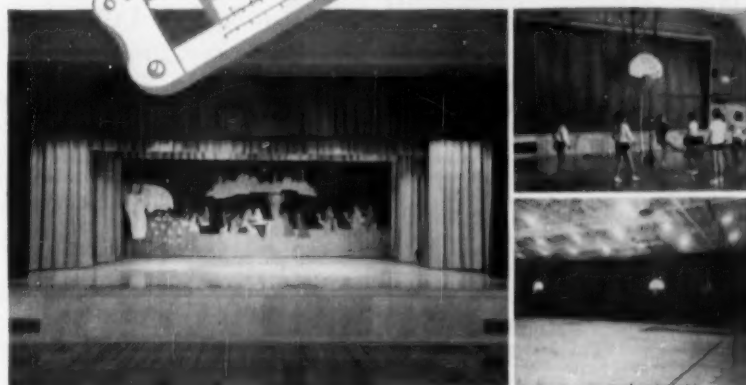
"We are attempting to make a visual report on some important phase of the educational program. We don't 'ham it up'.

"We simply say to our audience, 'We want to show you how we teach writing.' It could be reading, spelling, science, social studies, mathematics, rhythms, trades and skills, art or anything else."

Children are always the "actors" in demonstrations, with classroom situations frequently employed, complete with desks, chalkboards and teachers.

There have also been interviews

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New Dura-Decor materials suggest new uses all around the school. Added to normal Dura-Decor stage hangings, pictured above (left), is a back cyc seasonally-decorated with removable water paints. In the upper right, Dura-Decor protects an ordinary cloth stage curtain; lower right, a Dura-Decor room-dividing curtain makes two gyms out of one.

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Faucet washers, when fastened with **TOO LONG** or **SHORT** screws—as in “9 out of 10” replacements by best mechanics—quickly work loose, destroy themselves!

“SEXAUER” finds the answer—after 34 years research

Now, **NEW Pat'd. “Sexauer” SELF-LOCK** screws, with expanding **NYLON PLUG** imbedded in the threads, fasten and lock at correct depths **AUTOMATICALLY**, hold faucet washer firmly. Made of rust and corrosion resisting Monel, heads won't twist off, screw slots won't distort; they can be used over and over.

When installed with **NEW Pat'd. “Sexauer” EASY-TITE** faucet washers, this combination outlasts past faucet repairs “6 to 1”!

EASY-TITES are made of super-tough, pliable duPont compound (neither rubber nor fibre) to withstand super-hot water and make tight even on worn, corroded seats. They are further reinforced with a vulcanized layer of Fiberglas to resist distortion and splitting from shut-off squeeze.

The hidden costs of faucet leaks!

As authenticated by Hackensack, N. J. Water Co. and American Gas Association, stopping just **ONE** pin-hole (1/32”) size leak can reduce water waste 8,000 gal. monthly. Stopping a hot water faucet “drip” can result in water and fuel saving of over \$7.58 **QUARTERLY**—plus material and labor costs and costly fixture replacements!

That's why thousands of Government Agencies, Housing Projects, Hospitals, Colleges, Schools, Manufacturers, Hotels, Realities and Utilities—country wide—look to **“SEXAUER”** Technicians skilled in plumbing maintenance know-how. They are trained to determine stock levels thru complete **SURVEYS** of actual fixtures in service and to install stock systems that avoid overstocking and shortages.

NEW SELF-LOCK SCREWS and **EASY-TITE** faucet washers are just part of the **“SEXAUER”** line of over 3000 **TRIPLE-WEAR** plumbing repair parts and Pat'd. precision tools.

A **“SEXAUER”** Technician in your vicinity will make our **NEW**, 126 pg. Catalog H available and gladly consult with you regarding your plumbing maintenance problems without obligation. Write today!

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SPOTLIGHT

and human interest programs, with music used when appropriate, such as at Christmas or in the spring.

“As a rule,” Mr. Hunt explains, “we steer away from anything that tries to compete with the entertainment field. We are simply trying to tell a story and do it in as interesting a way as possible.”

Chicago Schools Utilize Nearby Forest Preserves

CHICAGO—The schoolchildren of this metropolis are more fortunate than those in most of the nation's big cities. They have 42,000 acres of forest preserves within Cook County to utilize for educational and recreational purposes.

Many of the Chicago schools are several blocks away from these forest lands, which, according to County Superintendent of Conservation R. F. Eisenbeis, “have no equal in the United States and are one of the country's greatest assets.”

For this reason, more and more

teachers are conducting field trips in the neighboring preserves.

Several county school systems have started nature trails in the forest preserves. Students label and keep up the trails throughout the school year.

During the fall of 1955, conservation officials conducted field trips for 800 teachers, as part of an extensive outdoor education program.

“So well has this activity been received that entire community school systems will close their schools for a day to participate,” Mr. Eisenbeis reports.

More Children Die From Accidents Than Disease

UNITED NATIONS—Accidents have become a serious and often a leading cause of death among children and adolescents, whereas mortality from communicable diseases — formerly very high—is continually decreasing.

These facts are shown in a statistical report, published by the World Health Organization, which presents statistics from eighteen countries on

SE-231

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Master-keyed
locker protection

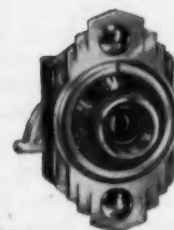
Dudley Master-Keyed Locker Locks give you extra security. The inside groove of the unique Dudley Master Key can't be duplicated on commercial key-making machines. The pattern of every Dudley Master Key is recorded. Duplicates are cut from code, supplied only after absolute proof of authority.

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P-570

America's finest Master-Keyed combination padlock.



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Built-in combination lock with 15-second combination change.

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modern Arlington
individual table desks
in ADJUSTABLE HEIGHT designs

*for comfort,
healthful posture
and greater
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Now Arlington brings to
individual table desk design the
added feature of adjustable desk height.

Desk top level may be easily set to fit the
individual student . . . for greater comfort
and better posture. Units are

easy to move for required
classroom arrangements.

Supplied with hardwood or
plastic desk top surfaces. Posts positioned
forward-of-center for easier entrance and
departure. Designed for use with No. 303
chair. Write for complete information on
Arlington No. 853 and 843 Individual
Table Desks.



10° closed lid position



lid adjusts to
level position



lid raises on friction
disc, slam-proof hinges

NO. 853 INDIVIDUAL TABLE DESK with lift-lid book box (above)

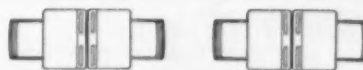
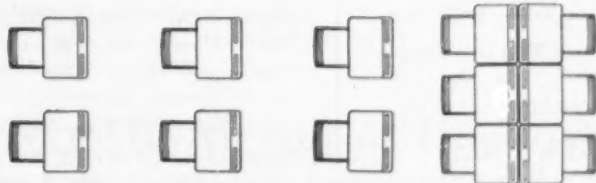
NO. 843 INDIVIDUAL TABLE DESK with open book box (below)



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a reliable source of school seating equipment for over 50 years

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arrange in conventional rows and cross rows . . .
or in a variety of patterns for group study



SE-233

SPOTLIGHT

deaths caused by accidents other than transport accidents.

In 1953, in this group of countries, 8,415 boys between 5 and 19 years of age died from infectious and parasitic diseases, compared with 13,414 in the same age-group killed in accidents (5,948 of them by drowning).

Thus, for a year, there were 159 accidental deaths for every 100 from the above-mentioned diseases in this group.

In certain countries, accidents accounted for nearly one-half of all deaths occurring among boys between 5 and 9 in 1953.

According to the WHO report, the most dangerous accidents apart from road accidents are: falls, which in some countries are responsible for up to two-thirds of all accidental deaths; drowning, which may account for up to one-third; fire and explosions, which sometimes cause up to one-quarter; and poisoning, accounting in some places for nearly one-fifth of all accident victims.

Children between 1 and 4 years old are the main victims of poisoning and burns; the age-group 15 to 40 is most liable to machine accidents; and the 15-25 age group, to firearms accidents. Those involving fire affect mostly the children between 1 and 10.

The countries whose statistics are included in the report are Canada, U. S., Ceylon, Japan, Germany, Austria, Denmark, Finland, France, Ireland, Italy, Norway, Netherlands, Sweden, Switzerland, Australia, New Zealand and the United Kingdom.

Counseling Expert Prepares Test to Measure Values

EAST LANSING, MICH.—What does a student really want out of a job?

"Vocational counselors might be more helpful to students if they could measure the student's vocational values to see what he honestly wants," a Michigan State University faculty member believes.

Dr. Buford Steffire, assistant professor of administrative and educational services, is now at work de-

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New Stacking Cup

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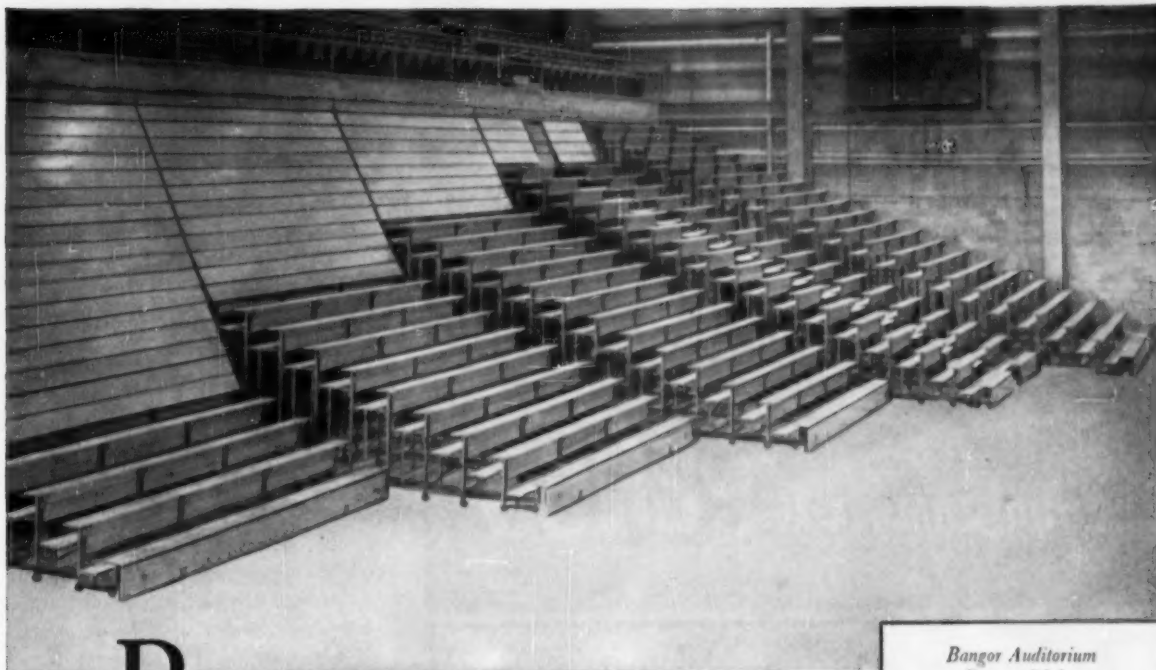


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DESIGNED FOR STRENGTH and BALANCE—18 gauge steel tubing, 20 gauge stamped steel seat, supports, etc. Won't tip or bend.
BEAUTY THAT LASTS—Chip-resistant enamel in Taupe, Pearl Grey, Beige.
LOWER COST—Compare with any competitive brands. Then note Campeco superior workmanship.
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Write direct to factory for descriptive brochure and name of your local dealer.

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Big Reasons Why *Universal* Roll-A-Way* Bleachers Were Installed In This Big Recreation Center

In selecting the main floor bleachers for this huge auditorium, the architect and building committee set up many rigid requirements. For example:

COMFORT. *Universal* Roll-A-Ways because they provide much more *natural* foot and leg room than any other leading bleachers. That assures spectator comfort.

EASE OF OPERATION. *Universal* Roll-A-Ways because they open and close easily in both large installations like this (22 rows) and in small installations... thanks to large, smooth-rolling wheels with broad faces, plus proper balancing of seat boards, foot boards and understructure.

SAFETY. *Universal* Roll-A-Ways because they have cylinder locks, keyed alike, for locking sections in place

when folded. Folding arms in the understructure are also designed to lock sections automatically in opened position... preventing accidental closing of front rows when sections are partially occupied.

MINIMUM MAINTENANCE. *Universal* Roll-A-Ways because they are exceptionally strong and assure many years of trouble-free operation; also easier to clean and keep clean. During closing operations, seat boards and foot boards fold vertically... dropping all debris to the open floor for easy sweeping. Nothing is carried back under closed bleachers.

Naturally, with such high scores, *Universal* Roll-A-Ways were specified for this big installation. But they rate just as highly for small installations. Write for free catalog today.

Bangor Auditorium
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Architect—Eaton W.
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Size—320' x 146'

Seating Capacity
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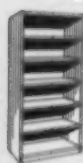
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the Perma-Built Line—enable your dealer to offer you more than 60 types and sizes. You'll find a design that fits your space needs and gives satisfaction to your workers.

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Penco specialists in storage equipment engineering are available—at no cost to you—to assist in planning an efficient, practical shelving installation to meet your needs.

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SPOTLIGHT

vising such a test. It would show whether a student wants to go into a profession because of prestige, money, a sense of accomplishment, security, desire to serve the community or just out of whim.

Thus far, Steffire has found that girls in rural areas often state they are interested in a particular career because of its value to the community. Boys and city girls are less likely to answer in this way.

While Dr. Steffire is working on this new type of test, he is using more traditional testing devices and counseling services. He is director of the university's out-state counseling clinic program, in which students in participating school districts undergo a one-day battery of tests. Members of the MSU staff and counseling center and graduate students participate.

The purpose of the program is to demonstrate the value of testing and counseling services, and to encourage school districts to set up their own facilities. University participants supply and administer the tests, and cooperate with local teachers in counseling the students and discussing their weak and strong points.

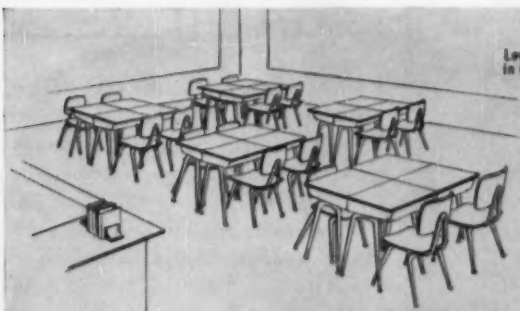
"The student and his parents have the right to any information they can intelligently use," Steffire commented. Each child is told how well he did, and has an opportunity to discuss his strong and weak points. Parents are invited to a later interview.

"There is no good 'testing package' which is good for all school districts," Steffire remarked. "Tests should depend on what the faculty and community want from their school program."

**Syracuse Sponsors Course
 In Money Management**

SYRACUSE, N. Y.—A six-week program designed to help educators improve their classroom instruction in personal and family money management will be offered by Syracuse University, July 2 to August 10.

The program will deal with such financial topics as planning for re-



Level top Lift Lid Desk can be combined in interesting groups of 2, 4, 6 or more.

SCHOOL FURNITURE BY KUEHNE...tomorrow's styling today: bright, clean and functional!

(SAY "KEE-NEE")

Here is furniture that paces classroom architecture of the future . . . furniture so beautifully trim and simple of line . . . so efficient in styling . . . so sturdily built and durably finished . . . so correctly designed for posture-perfect comfort . . . that it will be new for many years to come. Modest in cost—virtually free of upkeep, Kuehne's school furniture, backed by 35 years of know-how, promises the utmost in wear and value.

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OPEN FRONT DESK

Level top, frame and finishes same as Lift Lid Desk. Storage box, 22" x 17" with large opening. Ample pencil tray. Nine heights.



STACKING CHAIR

Nesting simplifies storage. Legs, 1 1/4" tapered tubular steel with ferrule-type self-leveling glides. Seat and back, of 5-ply hardwood impregnated with water-resistant resin. Eight heights. Wood parts, 3 colors and natural. Metal parts, 3 colors plus satin chrome.

LIFT LID DESK

18" x 24" General Electric Textolite level desk top; heavy piano hinge. Top lifts easily, closes slowly, quietly. Book box slopes from 4" to 5". Large pencil tray, 1 1/4" tubular tapered legs have ferrule-type self-leveling glides. Nine heights. Metal parts in three colors plus satin chrome.

Another Kuehne Exclusive!

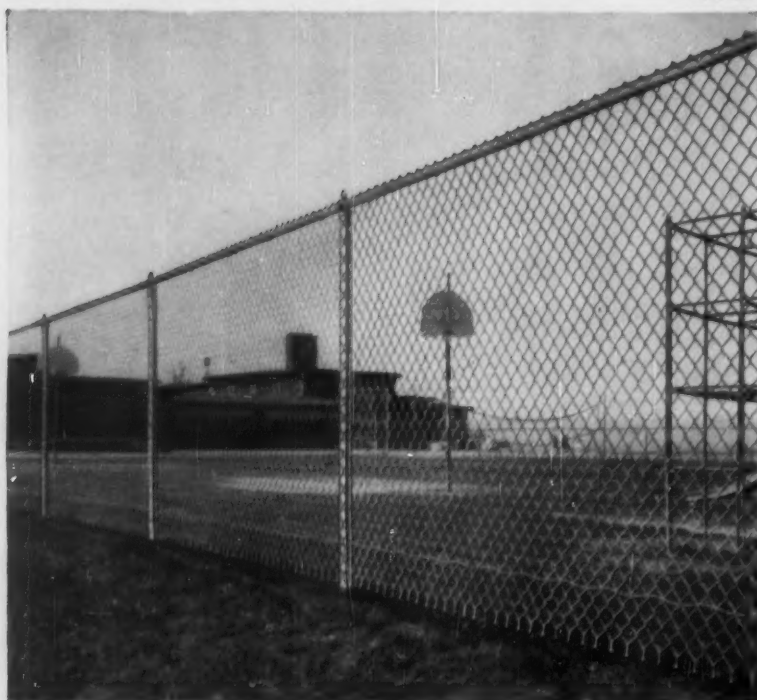


Rugged self-leveling heavy duty glides of stainless steel always stay level, even when furniture is tilted; won't mar floors; are completely interchangeable; will last for years.



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Handsome, sturdy Anchor Chain Link Fence gives your school complete safety and protection *night and day*. By day, Anchor keeps pupils safely inside—trespassers and unwanted animals stay out. At night, Anchor stands guard against vandals and intruders—helps preserve an orderly, well-kept appearance.

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SPOTLIGHT

tirement, wise installment buying, social security benefits and effective money management for the family.

Ten business and academic specialists from Syracuse University and other institutions of higher learning will lead discussions and seminars and conduct field trips to local financial and business organizations.

Fifty tuition and board scholarships are available to classroom teachers, supervisors, administrators and other interested educators. The workshop is part of a long-range program developed by the National Committee for Education in Family Finance.

Women Deans Group Changes Name

WASHINGTON—The National Association of Deans of Women, a department of NEA, has changed its name to the National Association of Women Deans and Counselors.

President of the newly-named group is Katherine A. Towle, dean of women and associate dean of students, University of California, Berkeley.

AASA Pamphlet Stresses Teacher Orientation

WASHINGTON—A new AASA pamphlet on teacher orientation emphasizes the important role that "getting off on the right foot" plays in adjusting a new teacher to a school system.

Teacher Orientation: Off to a Good Start stresses the value of warm welcomes and helping hands in a time of teacher shortage, high turnover, and competition from other occupations.

It points out the kinds of help new teachers need, how to give it, and what members of the staff should be responsible for it.

"With some school systems having as high as 30 percent of their staff new to their jobs each year," says the pamphlet, "helping new teachers get off to a good start has become a compelling administrative problem. The new teacher, whether he or she is a veteran of another system or an en-

WILBERT SNOW ELEMENTARY SCHOOL MIDDLETOWN, CONNECTICUT

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SPOTLIGHT

thusiastic youngster fresh from the college campus, finds the start in a new position a trying experience at best.

"There are so many things unknown about the community, the school plant, the instructional materials, the teachers on the staff, the children, the operational routines and what the teacher is expected to do and not to do."

The new publication maintains that orientation will not function as a corrective device. It will not be effective in undoing bad first impressions or making up for what has been left undone.

Parents and other citizens interested in the schools have much at stake in seeing to it that the new teacher succeeds, according to the pamphlet. Becoming acquainted with parents as individuals in their homes and in their community social functions is a big part of helping a teacher become acclimated to the new community and its life.

"Aside from any planned formal welcome," says the booklet, "new teachers need to be brought actively into the fellowship and activities of community organizations, both for social acquaintance and for the help which such contacts can provide in relating the community and its interests to the work of the school."

Adult Education Center Rises at University of Ga.

ATHENS, Ga.—A 2.5-million-dollar building is under construction at the University of Georgia here, which, when finished, will be the most complete structure ever designed exclusively for adult education, according to O. C. Aderhold, president.

The building, which will open here early this fall, is being paid for by the State of Georgia and the W. K. Kellogg Foundation of Battle Creek, Mich.

It will house the Georgia Center for Continuing Education, which will function as a hub of adult education in Georgia and the entire Southeastern United States.

The Georgia Center for Continu-

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School.....
City..... State.....
Per.....

SPOTLIGHT

ing Education will not be a school in the traditional sense, since there will be no set curriculum, High B. Masters, its director, observed.

He noted that "this will be a dynamic educational instrument using the most modern methods of communications to help adults solve problems encountered in daily living, whether they be business, professional, industrial, agricultural or social. We hope to have our facilities used by organizations and individuals from all over the United States."

Dr. Masters explained that the Center will maintain a flexible program of conferences, institutes, seminars and short courses on any subject for which there is a need and sufficient interest. These meetings will vary in length from one day to one month.

Although the building is contemporary in design, it is constructed of materials which blend with the older and traditional campus structures,

according to the architect, James R. Wilkinson.

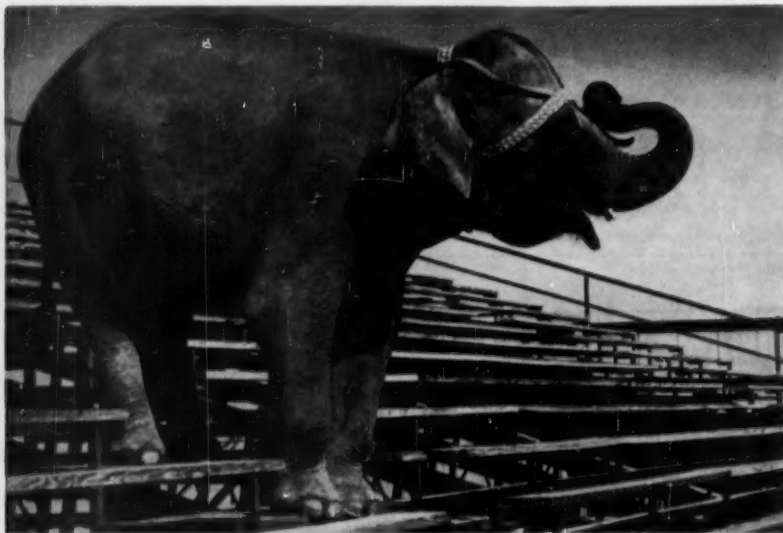
Educational facilities are housed in a two-story academic section. Instead of the traditional classrooms, this section contains academic suites, conference and seminar rooms.

Other special facilities include a 450-seat hexagonally-shaped auditorium with furniture arrangement similar to the UN General Assembly; professionally-equipped radio, television and motion picture studios, a library, lounges and exhibit areas.

Adjoining the academic section will be a five-story hotel-restaurant wing which can accommodate 300 persons. Participants in programs at the Center will be housed in this unit. Closed circuit radio and television programs related to current conferences will be piped into every room.

The Center is planning to operate a non-commercial television broadcasting station on Channel 8. The University's application to the FCC calls for one of the largest and most

SE-244



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HEROLD C. HUNT, *Eliot Professor of Education*
Graduate School of Education, Harvard University

Originally presented in the March issue of *The SCHOOL EXECUTIVE*, this secondary school program has caught the interest and imagination of everyone.

So that new subscribers also may become familiar with the Random Falls story, and to meet the unusual demand for use by school boards, staff conferences, community groups, etc., we have reprinted this 40-page study.

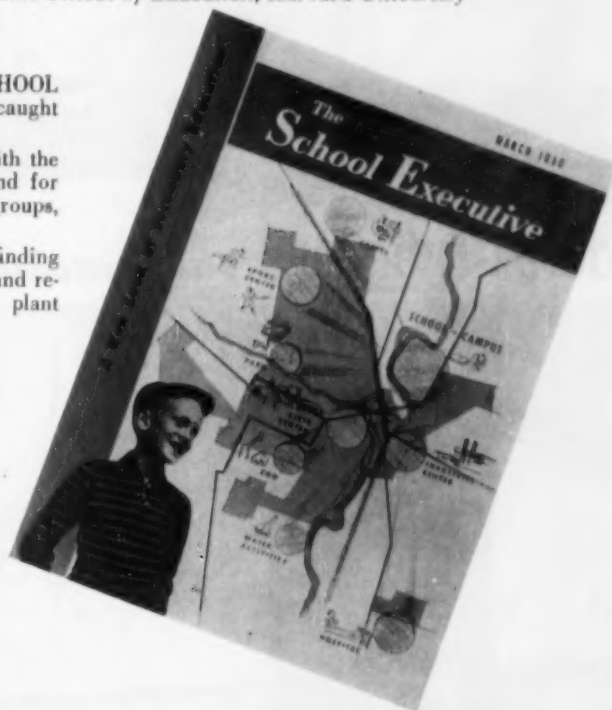
Administrators and school architects especially are finding this Shaw-Reid secondary school proposal a valuable and refreshing new approach to program and school plant planning.

"I am anxious to obtain copies for members of the Citizens' Committee who are working on plans for a new high school addition and also for our high school staff members."

FRANK W. MASON, *Superintendent*
Central School District #1
Gouverneur, New York

"We would very much like to have reprints so that we could place them in the hands of . . . board members."

WILLARD S. HAHN
Wolf & Hahn, Architects
Allentown, Pennsylvania



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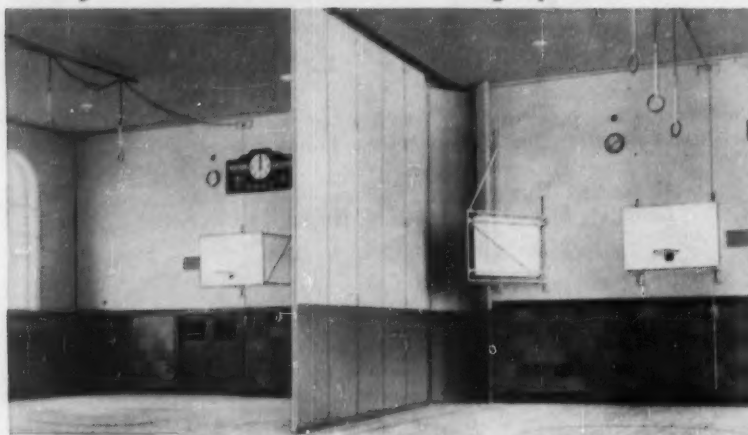
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School

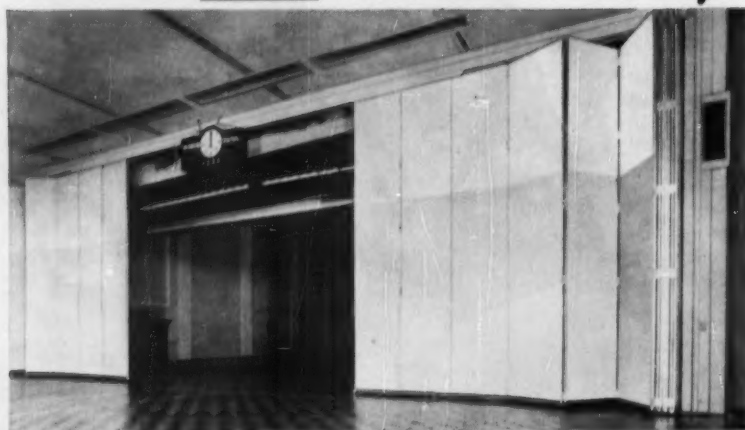
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powerful education installations in the United States.

The Georgia Center is the second building and by far the most advanced to be designed as an integrated facility for adult education. The first was built on the campus of Michigan State University by the Kellogg Foundation in 1951. Many innovations and advances since the previous building was opened are being incorporated into the new Center.

Syracuse's School of Ed Observes 50th Anniversary

SYRACUSE, N. Y.—The 50th anniversary of its All-University School of Education, which emanated from the Teachers College established here in 1906, is being observed this year by Syracuse University.

The golden anniversary theme will be "Education: the Substance of Freedom; the Keystone of Progress."

The first of a series of commemorative events was launched April 23 when the Manufacturers Association of Syracuse paid tribute to the School with a "salute to education" dinner.

The celebration will reach a climax during the 1956 Summer Sessions program with special lectures, conferences and a convocation to honor some of the country's most eminent educators.

Built on 50 years of progress, the All-University School of Education has many times proved itself a pioneer. The original Teachers College was the first institution for teacher training to be established in upstate New York. The Teachers College was the first of its kind to send its seniors into community schools as apprentice teachers.

What started out as a modest Teachers College, founded in 1906 by Dr. Jacob Richard Street, has in 50 years become a highly diversified School of Education with curriculums that are a far cry from the early days when pedagogy and academic study were the mainstays of the Teachers College.

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If you're not in **the book**, you lock yourself out of the elections. The polls are closed to you. You can't vote on streets, or schools, councilman or mayor (not to mention congressman, senator or president). You don't even have the right to *complain* about your government and the way things are run!

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And you lose the self-respect that comes from knowing you can walk into the polls on Election Day—the one place in the world where all free men are really equal. Isn't it too much to risk for the little time that registering takes?

Get your name in the book
—and do it now!

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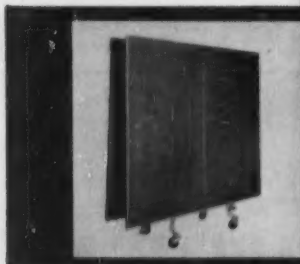
July, 1956



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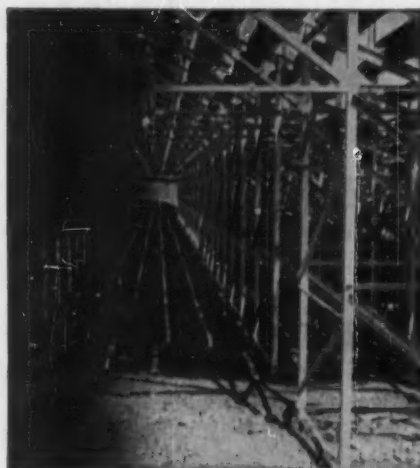
and graduate students, under the supervision of the School's dean, Virgil M. Rogers, study counseling, clinical psychology, evaluation, education for the handicapped and audio-visual education, in addition to teacher training.

Much of the development of the School of Education can be credited to Dean Harry Ganders, who in 1934 was behind the transition of the Teachers College to the All-University School of Education. This change brought twelve of the university's colleges and 75 of its departments into direct participation in the work of the School of Education.

A system of dual enrollment was introduced, allowing students to hold enrollments in the School of Education and in another school or college of their choice. Underlying this system is the basic concept that breadth of background and specialization go hand in hand for students of education at Syracuse University.

SE-249

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Local Jr. Colleges Extend Post-HS Services—Henry

BELLEVILLE, Ill.—Speaking recently at the ten-year celebration of the college part of Belleville Township High School and Junior College, David D. Henry, president, University of Illinois, called the junior college under local auspices "a sound and economical way to help extend post-high school education service to the youth of the state."

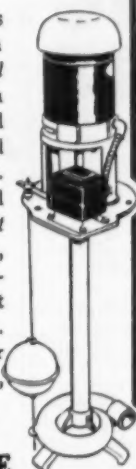
Pointing to expected increases in college enrollments, he declared, "it is obvious we shall have to utilize all the educational resources at our command. In any measure of the load ahead for higher education the development of the junior colleges takes on unusual significance.

"These institutions, located near centers for commuting students, will probably grow at a higher rate than the average. The junior colleges may be asked not only to accept the present proportion of the growing student load, but an even larger share. They now have 23,000 students in Illinois, 15 percent of the total col-

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July, 1956

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Architects: Fehr & Granger

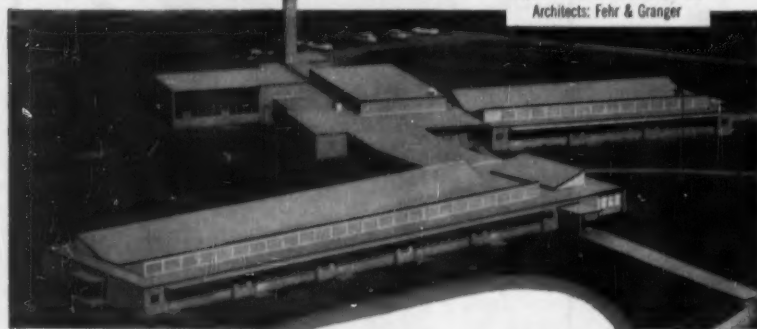
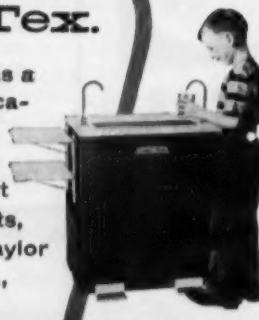


Photo by Meers, Austin

In Austin, Tex.

The Lone Star State has a host of wonderful new educational buildings. Not the least of these is this school in Austin, which boasts of the most up-to-the-minute appointments, among them, of course, Halsey Taylor fixtures. The Halsey Taylor Co., Warren, Ohio.



HALSEY TAYLOR
Fountains and Coolers



SPOTLIGHT

lege enrollment.

Dr. Henry offered the aid of his university "to encourage the development of junior colleges, both the strengthening of those which now exist and the establishment of new units."

"The effective preparation of new teachers for junior colleges will receive continuing attention by the university," he added.

Dr. Henry said that "The partnership between the state and community in tax support for the junior college, along with the student's contribution, makes possible a sound financial structure for development of an institution in a community which has a sufficiently large tax base and sufficiently large enrollment base to support a sound institution.

More state aid

"According to its chairman, the Illinois Commission on Higher Education is considering the encouragement of state aid for local junior colleges and legislation which will permit an enlargement of the tax base for local support. These proposals, in principle, have my personal endorsement."

Dr. Henry pointed out that "the junior college represents the convergence of four national educational trends:

1. post-high school service for the student who wants general or technical education, but who is not a candidate for a four-year program.
2. the first two years of degree work for commuting students.
3. adult education in a collegiate setting.
4. community service from a college organization."

East Meadow Principal Describes Jr. High Plan

EAST MEADOW, N. Y.—Educators in this Long Island community feel "we have an outstanding program in the junior high schools," according to Gustave Raitz, principal, Woodland Junior High School.

Each group of approximately 30

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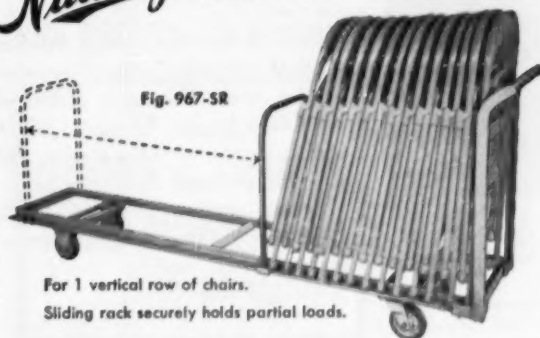
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Write for Chair Truck Literature and Bulletin 53-SC, which shows food service, classroom maintenance trucks and others.

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Fig. 964
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Fig. 969 For 2 vertical rows.

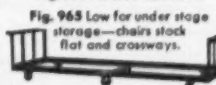


Fig. 965 Low for under stage
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children is assigned to a homeroom, and this homeroom teacher also teaches this group at least two periods every day, Mr. Raitz explains.

For instance, teacher "A" would be certified in English and citizenship education and would teach these subjects to her homeroom group.

Teacher "B" would be certified in math and science and would teach his homeroom group these subjects. Some time during the day, these two classes would be exchanged. These classes are scheduled in two period blocks of time.

In this program, each student gets one period each of English, citizenship education, science and math at the 7th and 8th grade level.

Special classes are also scheduled into the program. For instance, homeroom "A" might be scheduled for 20 weeks of art work with an art teacher in a special room, five days a week.

The girls of homeroom "B" would receive instruction in homemaking and the boys in shop, during this same 20-week period. At the conclusion of this time, the program interchanges.

Each homeroom group receives physical education in the gymnasium twice a week. This same period on other days is used for music education, guidance, remedial spelling and remedial reading.

Special services are available to the pupil through trained personnel to work with reading, speech and psychological services.

A full program of extra-curricular activities is also carried on along with intramural sports activities.

"From the reactions of parents, teachers, students and educators, we are convinced that this is a very good program," Mr. Raitz declared.

"However, to make it successful, it is necessary to have ample facilities and outstanding personnel. We are very fortunate in East Meadow in having some of the finest facilities in the United States.

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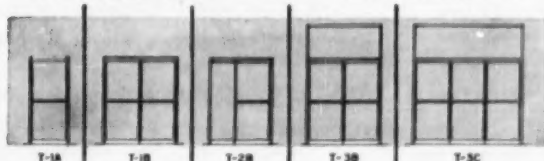
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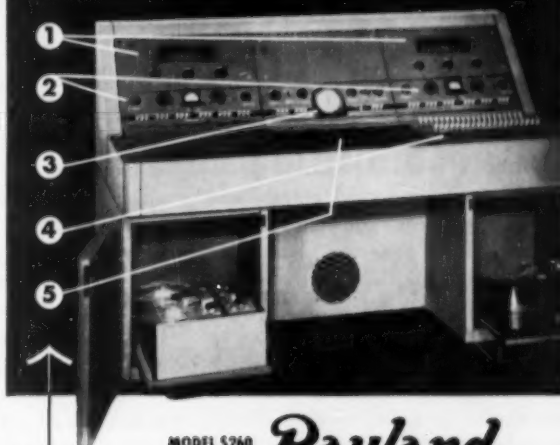
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No Misplaced Recordings In Racine Anymore!

RACINE, Wis.—Twelve of the sixteen elementary schools in this Lake Michigan community solved their misplaced record equipment problem by building record players and disc storage areas right into the wall, reports Lloyd Johanson, consultant in physical education for the school system here.

When Mr. Johanson was asked to make suggestions for some proposed multi-purpose rooms by Superintendent Ernest G. Lake, he immediately thought of the record problem.

"We had more than one or two record players in each building, and yes, we had a record filing system located centrally in each school. But teachers had to get the records and the machine, and both had to be returned. That's where we found our

difficulty. It took time, and we depended on many minds to remember."

Even when teachers understood what was causing the difficulty, the problem continued until a record player was built right into the wall of the multi-purpose room, with adequate record storage in the same encasement.

"Every record used in our curriculum has a Racine number and all the titles used by any one grade are listed on the wall above the encasement. All a teacher does is look at the card for her grade level, find the title she is interested in, observe its Racine number, and reach down below and pull her record.

"It is understood that these records never leave this storage cabinet. If teachers feel they want to use records in their rooms, a second copy of those particular records is purchased and is then kept in a central storage place where it can be secured and used in the classroom with a portable record player," Mr. Johanson reports.

Each unit includes a microphone



Student in Racine, Wis., uses public address system and phonograph of built-in wall unit (story at left).

that is stored right beside the record player and is always connected. The mike has been helpful in the primary grades. Since it is difficult for children to both dance and sing simultaneously, as is expected in singing games, one or more students sing over the mike with the record and the rest of the children dance.

Boys and girls love to sing over the sound system and the dancers perform better. Of course, in the upper grades teachers and students use the mike for calling and for giving instructions during rhythmic activity.

The turntable is mounted on a sliding shelf that can be pulled out for ease of operation. The turntables are three-speed and can be further controlled by a variable speed motor used in the unit.

In the new building installations, the speakers are placed in the ceiling. Four such speakers are placed in the ceiling of each new multi-purpose room. This makes it possible to hear with volume turned low.

New Interest Reported in Historical Source Materials

WASHINGTON—The nation is witnessing a remarkable revival of interest in programs to make the source materials for American history more widely available, Wayne C. Grover, Archivist of the United States, recently told delegates to the 65th Continental Congress of the Daughters of the American Revolution.

The real significance of this resurgence, said Dr. Grover, is that it is "support for the teaching of

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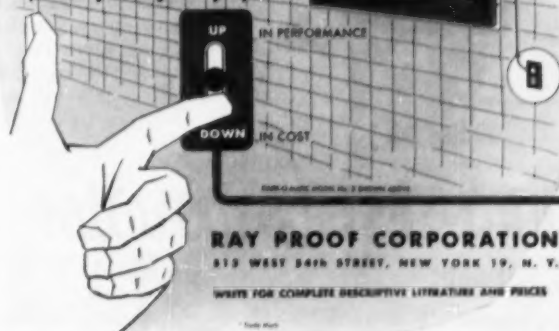
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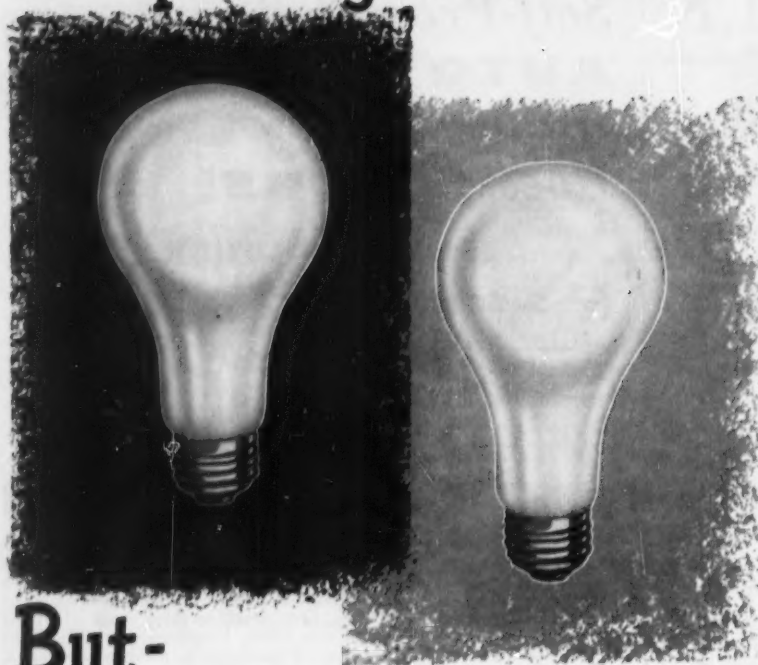
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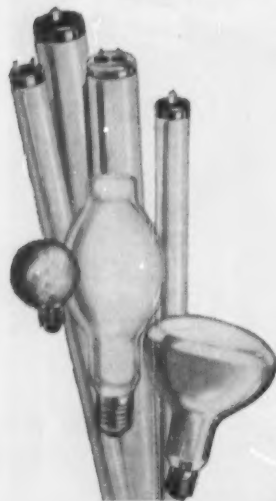
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American history. The way to stimulate interest in American history is first of all at the scholar's level—stimulate his interest and he will stimulate the teacher and the teacher the pupil."

From the standpoint of the National Archives, he added, "the greater the interest in American history, the more we like it, because we are convinced that the study of American history is one of the first requirements of good citizenship."

Conference Calendar

JULY

1-6, National Conference, Department of United Business Education Associations, NEA, Portland, Oregon.

1-7, Ninety-fourth Annual Meeting, National Education Association, Portland, Oregon.

2, Joint Luncheon, National Council of Administrative Women in Education, National Association of Deans of Women, Portland, Oregon.

2-3, Annual Summer Conference of National Science Teachers Association, NEA, Oregon State College, Corvallis.

2-5, Twenty-first Annual Meeting, National School Public Relations Association, NEA, Portland, Oregon.

8-20, Thirteenth Classroom Teachers National Conference, Department of Classroom Teachers, Portland, Oregon.

9-14, Public Relations Seminar, National School Public Relations Association, NEA, San Francisco.

20-22, National Association of Educational Secretaries, NEA, Los Angeles.

OCTOBER

7-11, Forty-second Annual Convention, Association of School Business Officials of the United States and Canada, Washington.

14-17, Eleventh National Conference, County and Rural Area Superintendents, Department of Rural Education, NEA, Atlanta.

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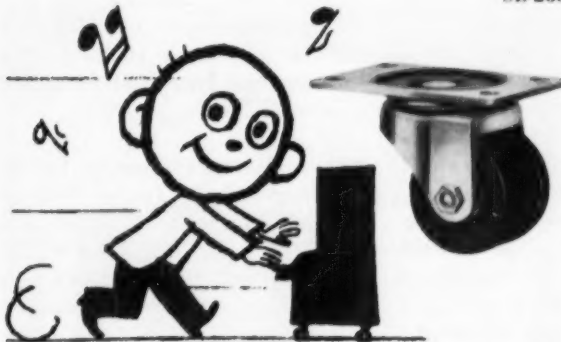
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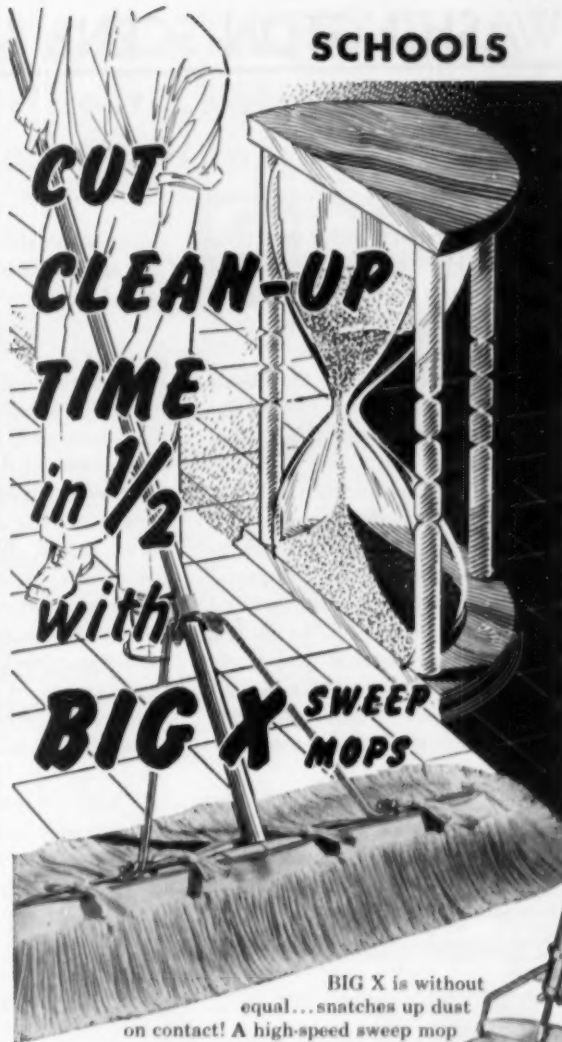
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WASHINGTON SCENE

news from the Capital affecting education

AS CONGRESSMEN REPLENISH their tool kits for the building of political fences back home, members take a few lurches toward measures to aid school construction. At this writing, predictions are that there is still a possibility for the federal aid measure to pass in this session of Congress.

Not only from Capitol Hill, but from the White House, comes an urge for action. President Eisenhower says "the enactment of sound and effective legislation to help build more schools should not be further delayed." This demand was made by the President in a letter to Neil McElroy, expressing appreciation for his work with the White House Conference on Education.

Any thought that the President may consider this a measure of only temporary significance is dispelled by his comment to Mr. McElroy that the report of the White House Conference Committee "should help point the way to a needed increase in public support for education over many years to come."

Recognition of the extreme need of construction for educational purposes is expressed also by the Senate Committee on Banking and Currency, which has recommended continuation of the college housing loan program with the present interest rate formula, and an additional quarter of a billion dollars to spend.

WHILE THE DRIVE for federal funds to aid state and local school systems and other educational enterprises sometimes bogs down, the solons of Capitol Hill, along with many other segments of the American population, are demonstrating renewed faith in education. Recognition of the fact that trained manpower is the key to both military and economic national security, appears in a number of measures that have been introduced in the 84th

Congress providing for scholarships and other student aid. Although not one of the record number of measures of this kind has yet been reported out of committee or even reached the hearing stage, the 25 bills to help students introduced into the House and six into the Senate are "straws in the wind."

At least one of the bills is specifically a defense scholarship act and is so named. Eligibility would be determined by examination in engineering, physics, chemistry and other related sciences. These awards, of course, would be to encourage the increase of manpower in the technical and scientific fields.

Such means of recruitment is more consistent with the democratic process than to herd high school students, regardless of aptitude and interest, into specific careers merely because of the public interest.

SCHOLARSHIPS AT PUBLIC expense are not, of course, an innovation. The National Science Foundation has been subsidizing students for a number of years. It has announced the award of 775 pre-doctoral graduate fellowships for the academic year 1956-57. The fellows were selected from 2,392 applicants from all parts of the continental United States, Alaska, Hawaii and Puerto Rico.

Emphasis on scientific careers is indicated by the fact that 182 of the pre-doctoral fellowships were awarded in chemistry. Physics came second with 165 fellowships, engineering sciences third with 109, mathematical sciences fourth with 67.

In addition to the pre-doctoral fellowships, the Foundation announces the award of 80 post-doctoral fellowships. In addition to these, there are 40 senior post-doctoral fellowships in the natural sciences. Stipends in the awards vary from \$1,400 to \$3,400 the first year.

ON OTHER FRONTS, the recruitment of qualified youth into scientific careers is going forward. The first meeting of the National Committee for the Development of Scientists and Engineers was held in mid-May. Howard L. Bevis, president of Ohio State University, is chairman.

Members heard addresses by Arthur S. Flemming, director of Defense Mobilization; Allan T. Waterman, director, National Science Foundation; and Lewis L. Strauss, chairman of the Atomic Energy Commission.

Significant action by the Committee included the appointment of a task force to recommend long-range programs for science and mathematics in elementary and secondary schools.

With Edgar Fuller, executive secretary of the council of Chief State School Officers, as chairman, the nine-man task force will hold its first session in June.

THE CONFERENCE ON the Fitness of American Youth, formerly scheduled to meet at Denver immediately before President Eisenhower suffered his heart attack, was carried out as planned. The meeting place, however, was moved to the Naval Academy at Annapolis. The sessions were held June 18-19, with Vice President Richard M. Nixon as conference director.

Invitations were sent out by President Eisenhower to 130 leaders of organizations concerned with programs of health and physical education. Among them were the American Association for Health, Physical Education and Recreation of NEA.

Other NEA departments, representatives of which were invited, include AASA, National Association of Secondary-School Principals and National Association of Elementary-School Principals.



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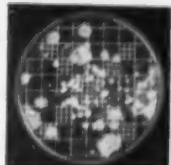
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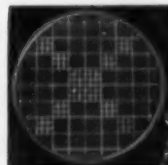
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recent publications the school administrator will want to read, to pass along to associates, or "to have heard of"

The New Era in Education— a Comparative Study

By I. L. Kandell, *Houghton Mifflin Company New York, 1955, 388 pp., \$4.00.*

Trends in education and the influences which produced them in the United States, England, France and Russia are analyzed in this volume on comparative education.

"The important fact that stands out," says the author, "is that national systems of education today constitute more than ever experimental laboratories dealing with similar problems, to the solution of which traditional cultural backgrounds and current political and social aims as well as economic forces will contribute more than any universal theory of education."

Adult Reading

Yearbook of the National Society for the Study of Education, edited by Nelson B. Henry, *Part II, University of Chicago Press, 1956, 279 pp., \$4.00 in cloth, \$3.25 in paper.*

With all the attention given to reading, one might be tempted to classify us as a nation of readers. But studies show that "an appalling number of Americans do not do any reading that is socially valuable."

A dozen top authorities tell something of what is known about why adults read what they do and how well. Special attention is given in this volume to the improvement of adult reading through the work of schools and colleges, libraries, and other adult education agencies.

Parents and Children

By C. W. Valentine, *Philosophical Library, New York, 1955, 212 pp., \$3.75.*

This book by an emeritus professor of education at the University of Birmingham, England, is written for parents, teachers, psychiatric-social workers, etc. The book has a wealth

of over-simplified material and attempts to discuss problems ranging from the basic motives of man, unconscious influences and abnormal reactions of children, general intelligence and intelligence testing, to school problems and discipline in the home—all in 212 pages.

In spite of covering too much territory, the book presents interesting and pertinent case histories which help to illustrate general principles. Its style is repetitious, wordy and pedantic.

The author's habit of forewarning the reader of material he intends to cover in a later chapter becomes tiresome, especially when coupled with a referral back to the chapter just completed. This method of developing his theme stifles any growing interest in the subject matter. The material of the book warrants a much lighter touch and more flowing style to be more effective in holding the interest of the reader.

—AMELIE ROTHSCHILD
Executive Assistant
New York State Citizens
Committee for the
Public Schools
New York City

The Modern Junior High School

by William T. Gruhn and Harl R. Douglass, *second edition, The Ronald Press Co., New York 1956, 421 pp., \$5.50.*

The impact of the junior high school movement over the past three decades has resulted in reorganized secondary schools which now exceed regular high schools in number and in enrollment.

How this came about and what characterizes the philosophy and program of the junior high school are described in this comprehensive revision of an authoritative volume.

The new volume describes current practices, and lists problems facing the future. It is designed for use not only as a textbook, but also for

teachers, administrators and laymen interested in furthering their understanding of junior high school objectives, program and operation.

Antecedents and Effects of Administrator Behavior

By David H. Jenkins and Charles A. Blackman, *CPEA in Ohio Bulletin No. 3, Ohio State University Press, 1956, 162 pp., \$2.00.*

This is the third monograph in the School-Community Study series of the CPEA in Ohio. Data from some 50 elementary schools were gathered in a systematic analysis in answer to the question, "What are the effects of administrator behavior upon teacher behavior?"

The report describes in detail four cases of elementary school principles in action. It includes a section summarizing the major conclusion from the study. The application of these findings in the preparation of school administrators and the meaning for practicing elementary school principals are treated as well.

The School Administrator and the Press

by Benjamin Fine and Vivienne Anderson, *Arthur C. Croft Publications, New London, Connecticut, 1956, 122 pp., \$2.50.*

Two specialists prepared this practical guide for school officials and staff, intent on making the best use of the press in presenting school news to the public.

What is news, how to prepare releases, and what editors want are described in this pamphlet designed to help schools build an effective public relations program. An abundance of "do's" and "don't's," sample news releases, and other helpful devices are included.

This manual deals principally with newspapers. Subsequent pamphlets in a series by the same authors will be forthcoming on radio, television and public meetings.



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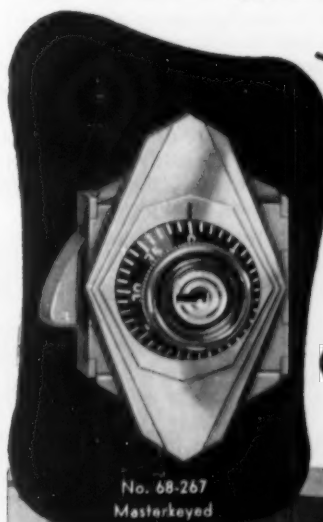
July, 1956

SE-275



LARSEN JUNIOR HIGH

Elgin, Illinois



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Masterkeyed

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**NATIONAL
LOCK
built-in
self-locking
COMBINATION
LOCKS**

LeRoy Thompson, Elmer Gylleck, associate architects

Another leading school selects National Lock
built-in Combination Locks. Time and again, when
careful consideration is given to lock quality,
dependable, low-cost security and simplified, efficient
locker control, National Lock is specified. Make
certain this superior lock is an integral part of the
new lockers you buy. Write for full information.

**NATIONAL LOCK BUILT-IN, SHACKLE, CABINET
LOCKS FOR DEPENDABLE, LOW-COST PROTECTION**



NATIONAL LOCK COMPANY

ROCKFORD, ILLINOIS • LOCK DIVISION

107

CROWD PLEASER!

SE-276

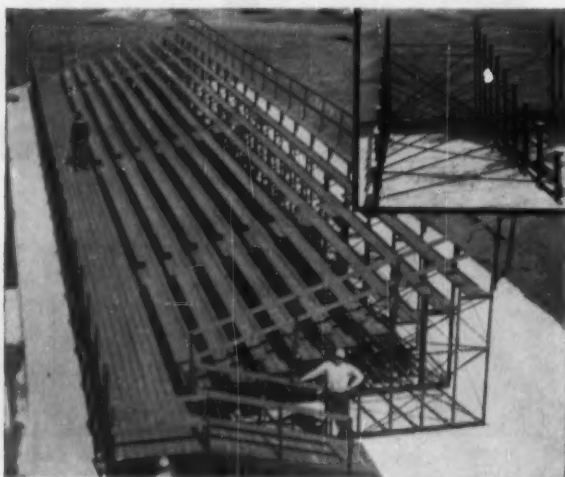
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LEAVITT

BLEACHERS

Follow the crowd to Leavitt Bleachers! They're safety-engineered for impossibly heavy loads... with wide seat and foot boards for both safety and comfort. *Extra comfort* results from Leavitt features such as back-sloping seat boards... an off-set back rail which provides back rest for top row seats.

Leavitt Bleachers are priced to fit a school budget... they're completely portable... easily stored in a minimum space. In both portable steel bleachers (elevated or non-elevated) or knock-down wood bleachers.



Leavitt Bleachers are expertly built of quality materials for strength, safety and long life. Portable, elevated type steel grandstand (above) has heavy cross-bracing in both directions for rigidity... sway prevention.

DISTRIBUTORS IN 48 STATES...USE COUPON BELOW!

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207 Griggs St., U-bana, Ill.

Send me the following, **FREE**—at no obligation.

- ☐ Leavitt Bleacher literature. ☐ Name of nearest Leavitt dealer.
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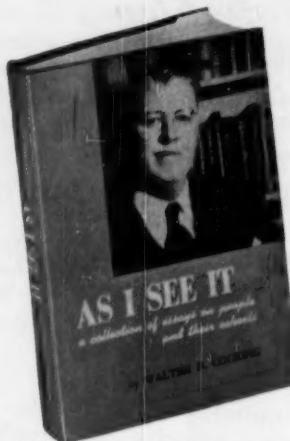
Leavitt

Bleachers have seated millions wherever crowds assemble, since 1895.

SE-277

"These essays are windows into the mind of one of the most widely experienced, keenly observant and deeply reflective of our educational leaders"

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AS I SEE IT

by Walter D. Cocking

now in permanent
book form

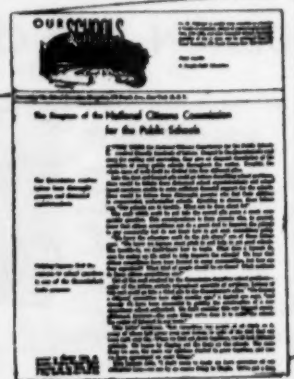
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with the Macmillan
Company, publishers
of "As I See It,"

we are happy to offer you a copy of this new book, together with the extension of your subscription for an additional twelve months—both for \$5.00—a substantial saving over their cost if purchased separately.

THE SCHOOL EXECUTIVE

470 Fourth Avenue
New York 16, N. Y.

SE-278



**THIS
MONTHLY
LEAFLET
Informs the
public on
school aims &
programs.**

Our Schools provides the materials **YOU** would like to prepare for the laymen of your community if you had the **TIME!**

This popular "green sheet," written in simple, everyday language, is reprinted from the **SCHOOL EXECUTIVE** every month for distribution to Board members and other public-minded citizens.

Quantity Subscription Rates

10 copies for 1 month	\$1.00;	for 12 months	\$10.00
25 copies for 1 month	2.00;	for 12 months	20.00
50 copies for 1 month	3.00;	for 12 months	30.00
100 copies for 1 month	5.00;	for 12 months	50.00

(Sorry, we cannot accept orders for single copies)

THE SCHOOL EXECUTIVE

470 Fourth Avenue

New York 16, N. Y.



The School Lunch Planning Committee in Mesick, Michigan, has a big responsibility. For in this rural community, whose farmers are feeling the present economic "pinch" in their vocation, the hot, daily lunch frequently determines whether a child is to enjoy a balanced nutritional diet. Represented on the committee are three cooks, a lunch supervisor, homemaking teacher, principal, students and parents.

The School Lunch Program Nourishes Our Town's Economy

BY W. E. BAKER

Superintendent
Mesick Consolidated Schools
Mesick, Michigan

QUIPSTERS HAVE CALLED the school "a dumping ground for all of the unpleasant menial tasks that parents do not want to take time to perform," and included in this is packing the daily lunch.

In Mesick, Michigan, the hot noon lunch served at school is considered far from a luxury. Rather it is a necessity, often meaning the difference between a balanced or unbalanced diet for every school-age child.

The school lunch program became an important part of the Mesick Consolidated School during the depression days of the 1930's and early 1940's when many children came to school on empty stomachs and carried cold pancakes in an old paper sack for lunch. Much of the credit for the success of this early program must go to the federal project known as WPA which provided funds to pay, not only the cooks, but a school garden crew who raised much of the food served in the program.

During those trying times the rewarding effects of a hot lunch at noon was strikingly obvious, espe-

cially among the smaller children. Eyes appeared brighter, listlessness disappeared, and powers of concentration were strengthened. Our teachers found teaching much more effective when the pangs of hunger were eased by hot soup and nourishing food.

We have heard much about the unfortunate plight of the American farmer. In a rural area such as ours, where over 80 percent of our students come from farm homes, we find the condition reflected in the school lunch program.

Today, in the midst of plenty there are still those subsistence families whose children are the inevitable products of poor soil and cheap land, with which our school area is generously endowed.

Our lunch program provides approximately 400 free meals each month and offers work opportunities for many more from the larger families so that they can all participate in the program. Our policy provides for one worker from each family with three or more children in

school. With a cost of 20 cents per meal the saving, though small, often means the difference between enjoying a good hot lunch or eating cold sandwiches.

For the most part the cooking is done by three full-time cooks who have received training at special school lunch summer training courses sponsored by colleges and universities. They receive supplemental help in planning through the year by vis-

This school-operated cannery gives employment to students in need, experience to future homemakers and farmers, and saves large quantities of food for "later on."



its from the nutrition specialists of the state Department of Health, the homemaking teacher in our school

and the school lunch supervisor.

Menus are prepared a month in advance by a school lunch committee consisting of students, parents, teachers, cooks and the supervisor. Every effort possible is made to make the meals attractive and appealing within the limit of 20 cents and still keep them highly nutritive. Student surveys are made frequently to discover likes and dislikes in order to avoid waste and to correct conditions which discourage participation.

Teachers are encouraged to capitalize upon the school lunch program as a means of teaching sources and values of the various foods served, as well as the social graces and good manners. This has been especially helpful in introducing a new dish of fruit or vegetable which might otherwise be rejected by children who had not been previously conditioned for its appearance on the menu.

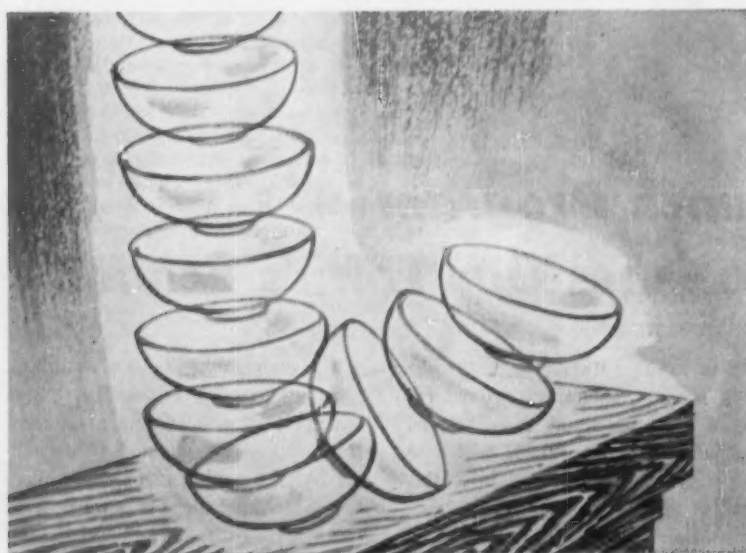
Pupil advice sought

The student council is encouraged to discuss the operation of the lunchroom and to offer suggestions to improve the program. Recently this group presented suggestions for making the room more attractive by adding more lights, redecorating the walls and supplying music during the lunch period. The council is now raising funds with which to purchase and install a speaker to transmit music from the central office intercommunication system. Since the lunchroom is housed in a separate building rented from the local Rebecca Lodge, steps are being taken to enlist their cooperation in making the adjustments.

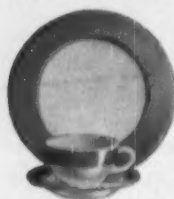
One of the contributing factors to the success of the school lunch program is the community cannery. This is operated by the school for the convenience of its patrons. During the fall months, student groups are given an opportunity to gain experi-

Double-Tough can drop twice as far as ordinary dinnerware without breaking!

SE-279



Choose from six smart color patterns!



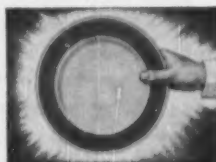
● **You save on replacement costs** with Double-Tough, because tests prove it will survive a drop from a height twice as great as other ware. Choose Double-Tough in handsome solid borders of Coral, Gray, Autumn and Aqua—also with green or maroon bands. Order from your Double-Tough equipment dealer now!



● **Much lighter!** Double-Tough Dinnerware is 20% lighter than competitive ware. It's far easier to stack, carry and handle.



● **Washes easily!** Double-Tough washes clean quickly and easily. Sticky foods won't cling to the smooth, hard, non-porous surface.



● **Long-lasting beauty!** Double-Tough keeps its good looks much longer, because there's no surface glaze to scratch or wear away.

CORNING DOUBLE-TOUGH Dinnerware

Consumer Products Division, Corning Glass Works, Corning, New York

SCHOOL EQUIPMENT INDEX—JULY, 1956

This index covers products and services referred to in both advertisements and editorial reviews in this issue. To find a particular advertisement or editorial listing, consult the key (SE number) which precedes the listing, and which will also be found above the advertisement or listing in the body of the magazine.

If further information concerning any of these products is desired, it will be sent without charge or obligation. Simply circle the identifying numbers on the back of the business reply card below and mail it to us.

ADVERTISED PRODUCTS

- 201 Fibresin Plastic Tops
- 202 Mississippi Diffused Glass
- 203 Wayne Rolling Gymstands
- 204 General Precision School Television
- 205 American School And University 1956-57 Two-Volume Edition
- 206 Chevrolet School Bus
- 207 Multi-Clean Giant Floor Machine
- 208 Horn Folding Gym Seating
- 209 American City Fund-Raising Campaign
- 210 Ruud Gas Water Heaters
- 211 Ft. Howard Paper Towels
- 212 Huntington Sani-Tate Bowl Cleaner
- 213 Recreation Playground Equipment
- 214 Vestal Style Floor Wax
- 215 Remington Rand School Records Fire Hazard Calculator
- 216 Monsanto Vinyl Flooring and Wall Coverings
- 217 Strong Automatic Arc Spotlights
- 218 PC Glass Blocks
- 219 Armstrong Acoustical Materials
- 220 Peabody Classroom Seating
- 221 White Mopping Tanks
- 222 Swedish Olsonite Toilet Seats
- 223 Brauer Tornado Floor Machines
- 224 Haldeman-Homme Automatic Hydraulic Action Folding Tables
- 225 Johns-Manville Terraflex Tile Flooring
- 226 American Seating Auditorium Chairs
- 227 Medart Telescopic Gym Seats
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- 231 Dudley Master-Keyed Locker Locks
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- 234 Carolina Folding Chairs
- 235 Universal Roll-A-Way Bleachers

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- 237 Kuehne Tubular School Furniture
- 238 Anchor Chain Link Fence
- 239 Powers Heating & Ventilating Temperature Control System
- 240 Carolina Metal Vacuum-Powered Stop Signal
- 241 Fleetwood Flexible Furniture
- 242 Brunswick School Furniture
- 243 Young Barrel and Drum Stands
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- 245 The School Executive "A New Look at Secondary Education".
- 246 Richards-Wilcox Folded-Way Partitions
- 248 Sico Tuck-A-Way Tennis Table
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- 262 Page Chain Link Fence
- 263 American Lincoln Auto Scrubber
- 264 American School Furniture
- 265 Ray Proof Light Proof Window Shade
- 266 Dura-Test Lamps
- 267 Loxit Chalkboard System
- 268 Basick Rubber-Cushion Glides & Diamond-Arrow Casters
- 269 American Standard Sweep and Wet Mops
- 270 Griggs Auditorium & Classroom Seating
- 271 Kol Collectors
- 272 Penstone Demon Sanitizing Floor Wax
- 273 Hotel Brighton in Atlantic City

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PERMIT NO. 280
SEC. 34.9 P. L. & R.
NEW YORK, N.Y.

BUSINESS REPLY CARD
No Postage Stamp Necessary if Mailed in the United States

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THE SCHOOL EXECUTIVE

470 FOURTH AVENUE

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 275 National Self-Locking Combination Locks
 276 Leavitt Bleachers
 277 "As I See It" Text By Walter D. Cocking
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 280 National Cornice Atlas Hot Food Tables
 281 Stacor Flex-Master 6 Student Drawing Table
 282 Don Kitchen & Luncheon Equipment
 283 Geneva Home Arts Classroom Steel Cabinets
 284 Bradley New Foot-Control Washfountain Mechanism
 285 Dage Closed-Circuit Television
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 287 International Seat Auditorium Chairs
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 409 Modern Swimming Pools
 410 National School Classroom Cabinets
 411 Metalab Classroom Equipment

THE SCHOOL EXECUTIVE, 470 Fourth Ave., New York 16, N. Y. July, 1956

Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224
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Also send literature on _____

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INSTITUTION _____

ADDRESS _____

CITY _____

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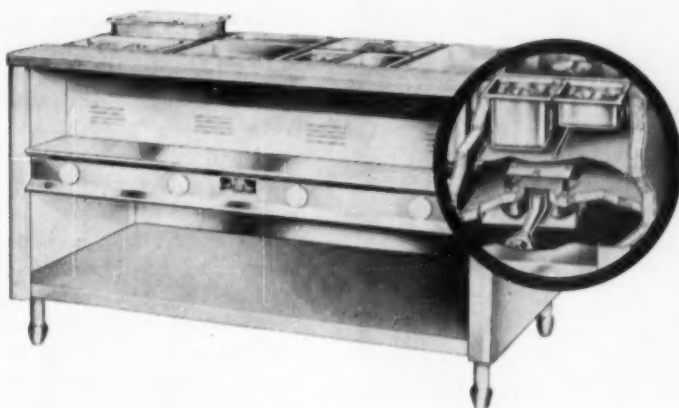
STATE _____

3-WAY WARM
AIR CONTROLS FOR
VARIOUS FOODS



"FULL-CIRCLE"
HEATING IN
EACH SECTION

only **ATLAS Hot Food Tables** give you both



To keep a variety of food properly, you need separate controls PLUS uniform heat distribution in each compartment. ONLY Atlas stainless steel Hot Food Tables offer BOTH.

"FULL-CIRCLE" principle circulates heat uniformly, around sides and bottom of pan. Nichrome screen, above burner gives complete combustion to 98%.

"FULL-CIRCLE" heating principle plus removable drip pan creates even heat, prevents dried out and scorched food.

Extra-thick Fiberglas insulation completely surrounding each section prevents heat-transfer from one compartment to another. Built-in dish shelf, directly beneath vents, keeps dishes warm, ready for use; an exclusive Atlas feature.

Stainless steel floor pans in each compartment remove easily for cleaning. Legs are adjustable. Baked hammertone or stainless steel finishes. Various sizes to meet your needs. Write today.

ATLAS Division
NATIONAL CORNICE WORKS
1323 Channing Street
Los Angeles 21, California



SE-281

**3-IN-1
LIFETIME*
EFFICIENCY**

FLEX-MASTER

6 STUDENT DRAWING TABLE

Manufacturers of
Lifetime
Steel Blue
Print Filing
Cabinets,
Drafting
Tables,
Tracing
Tables, etc.

It's a LIFETIME* STEEL DRAWING TABLE... a BOARD STORAGE UNIT... a TOOL STORAGE COMPARTMENT. Equipped with selected soft wood adjustable top with zinc plated steel and cleats. Large all-steel center drawer; 6 master-keyed individually locked tool drawers. Drawers operate smoothly on nylon glides. Holds 6 boards up to 20"x26". Rigid welded steel construction.

Baked hammertone gray enamel finish. 37" high. Many board sizes. Also available with steel or hardwood tops.

WRITE FOR CATALOG; DEALER INQUIRIES INVITED

STACOR EQUIPMENT CO.

475 Troy Avenue • Brooklyn 3, New York

SE-282

Now is the BEST time To Plan Your Equipment

This is the time to plan your kitchen and lunchroom equipment and make your purchases for the coming year. It does take time from request to requisition—to delivery and installation—so, by ordering NOW, you can have your requirements when you need them and be all set for the big student rush. You will find the answer to your food preparation and service needs—from dishes and dishwashers to cutlery and ranges—among the 50,000 items sold by DON.

Prompt Delivery WHEN YOU WANT IT!

Place your order now and you'll receive the equipment and supplies anytime you specify. Take advantage of this opportunity for which you have planned, and be prepared for the Fall Semester. As always — Satisfaction Guaranteed or Money Back!

Write Dept. 26 for a DON Salesman to call.



STEAM COOKERS



VEGETABLE PEELERS



DISH WASHERS

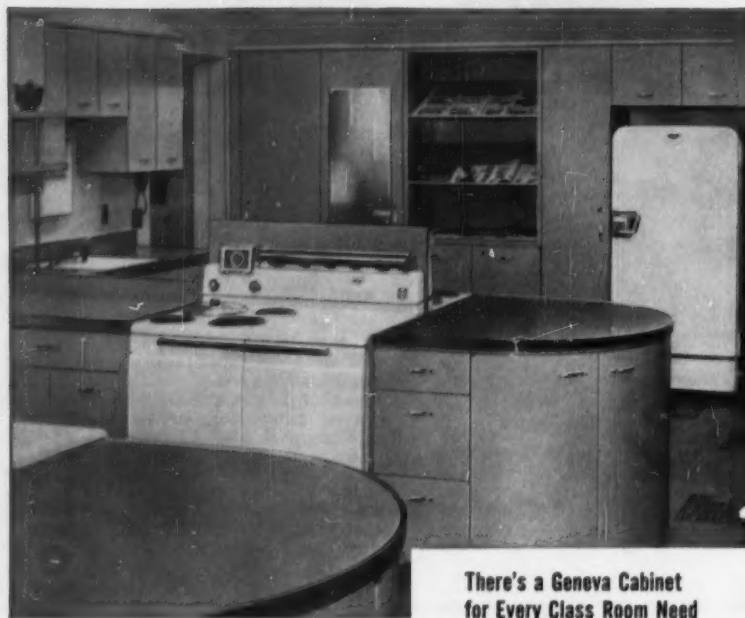


STEAM TABLES

EDWARD DON & COMPANY
GENERAL HEADQUARTERS—2201 S. LaSalle St.—Chicago 16, Ill.
Branches in MIAMI • MINNEAPOLIS • ST. PAUL • PHILADELPHIA • CAMDEN

Cut costs...add quality

with GENEVA steel cabinets
for home arts class rooms



There's a Geneva Cabinet
for Every Class Room Need

Your home arts class rooms tailored to your specific needs

Your school benefits two ways when you specify GENEVA steel cabinets . . . lower initial cost . . . decidedly lower maintenance cost. And GENEVA offers the most extensive line of steel cabinets in the industry, designed specifically to meet the requirements of home arts departments. If your school is anticipating remodeling or new building, investigate the economy and fine quality of GENEVA cabinets.



Ironing Board
Cabinet



Wardrobe
Cabinet



Food Staples
Cabinet



Tote Tray
Cabinet



GENEVA MODERN KITCHENS

Geneva, Illinois
Division of Acme Steel Co.

Please send illustrated brochure of GENEVA steel cabinets
designed for home arts class rooms.

Name _____
School _____
Address _____
City _____ State _____



LUNCH

ence in harvesting, cleaning, preparing, canning and processing in tin many foods which are used later in the lunchroom.

Last fall the boys in the agriculture classes harvested over twenty bushels of pickles donated by a local grower. The pickles were brought into the cannery where the boys and girls in homemaking courses prepared them under proper supervision for future lunchroom use. This same procedure has been followed with truck loads of apples, peaches, tomatoes, pumpkins, celery and other fruits and vegetables in season. A special effort is made to see that student labor is not utilized beyond learning experience.

The school has two large, deep freezers and a large cooler for storing fresh beef, pork, butter and other perishable items until they are needed. Beef, pork and poultry are often purchased directly from the farm and processed in the cannery, as are confiscated deer, which are supplied by the conservation department during the hunting season.

Adults use lunchroom

The school lunchroom in Mesick is not confined solely to student use. It is frequently called upon to accommodate groups of adults who attend community institutes, Farmers Day programs and other special events involving adults in the total community-school program. Such use serves to acquaint parents with our lunch facilities, and presents them with samples of what their children are served.

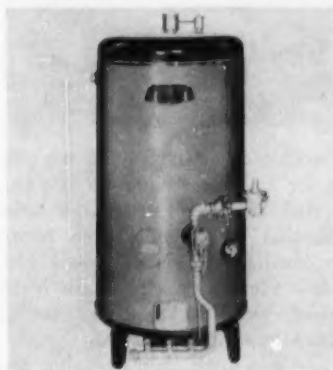
The school lunch program is making a valuable contribution in our efforts to present to our public a well balanced educational program. The program is also making its contribution in bringing back to normal the income of the farmer, through utilizing to the best advantage many surplus farm products which are supplied through governmental agencies. We in Mesick sincerely hope that our Federal Government will continue to help us build strong, healthy bodies in our youth through subsidies to this worthy program.

New Product / Reviews

BUILDING PRODUCTS

See also page 114

Gas Water Heater SE-301 *Ideal for Large Schools*



The new Sanimaster Water Heater is used as an automatic storage water heater and as a circulating tank water heater. It can be installed singly or in multiples for single, or for self-contained two-temperature operation.

As a circulating tank water heater, installed in conjunction with tanks containing from 100 to 3,000 gallons, the new unit is ideal for use in large schools that have high periodic hot water demands.

Two models are available.

RUUD MFG. CO., Kalamazoo, Mich.

TEACHING MATERIALS

See also page 115

Reading Pacer SE-302 *Developed for Remedial Reading*

The new Shadowscope Reading Pacer, developed for remedial reading, is designed for flexible use with all types of reading materials. The self-contained and portable unit simulates the normal reading situation;



varied reading speeds can be selected and transfer of reading gains to normal reading patterns is effected through rheostat reduction in intensity of the descending light beam.

LAFAYETTE INSTRUMENT CO., Lafayette, Ind.

CLASSROOM EQUIPMENT

See also page 118

Air Conditioner SE-303 *Designed Specially for Schools*



The HerNel-Cool school air conditioner has been developed to fill demands resulting directly from increased school enrollments. The new cooling unit operates like traditional classroom unit ventilators during winter, early spring and late fall months—blending outdoor air with recirculated room air to heat, ventilate, cool and eliminate odors. When outdoor temperatures rise above the desired classroom comfort level, chilled water is introduced into the

unit and the proportion of outside air is reduced.

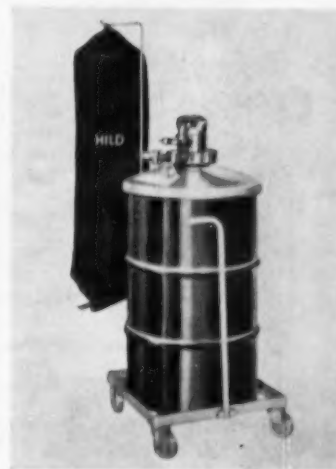
The HerNel-Cool operates more economically than conventional units because its basic design permits introducing up to 100% of the desired ventilation air from outdoors. This permits pre-cooling classrooms.

AMERICAN AIR FILTER CO., INC., Louisville 8, Ky.

MAINTENANCE

See also page 120

Vacuum Cleaner SE-304 *Motor is Detachable*



The Hild Floor Machine Co. announces a new transferable head, outside bag vacuum cleaner. The motor is detachable for use as a strap back vacuum or blower. Large air volume and high speed are important features.

This unit is available with 55 gallon tank or without, and with or without four-wheel ball bearing dolly.

HILD FLOOR MACHINE CO., INC., 740 W. Washington Blvd., Chicago 6, Ill.

BUILDING PRODUCTS

Roof Ventilator SE-305

Features Low Contour

The Contouramic Airmover features exceptionally low contour plus increased capacity per square foot of roof opening. It is nearly a foot lower than formerly—only 21½" high above the roof curb and air-moving capacity is more than 7% greater.



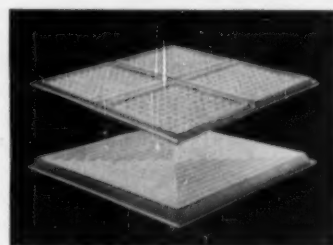
Simplified damper control is standardly equipped with fusible links which permit the weighted dampers to open automatically in case of fire, when links melt at 160°. The unit is weatherproof at all times;

drainage runs directly to roof on both sides. Considerable weight has been saved, and the lower height assures less wind resistance. An improved base structure simplifies mounting on concrete, wood or steel curb built on the roof.

THE SWARTWOUT CO., 18511 Euclid Ave., Cleveland 12, Ohio.

Lighting Panels SE-306

Have High Noise Reduction Coefficient



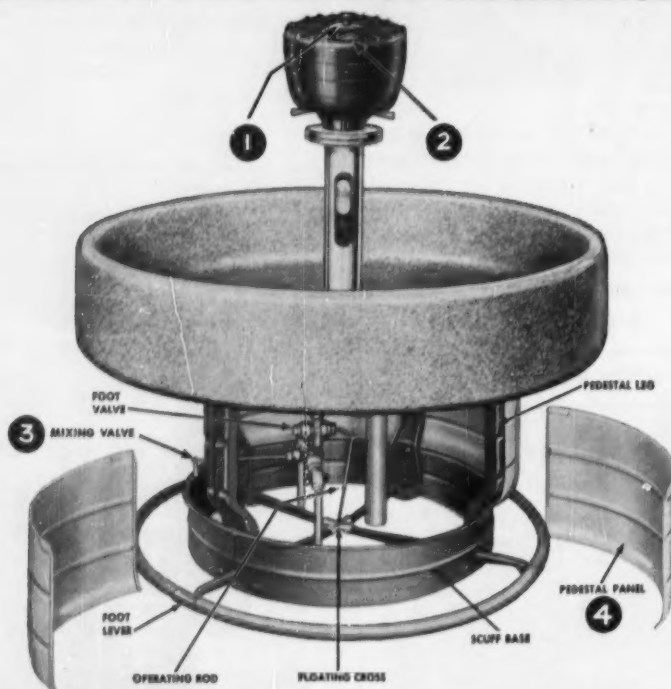
Iso-Sonic translucent lighting panels for luminous ceilings utilize perforated surfaces for a high noise reduction coefficient. These panels are ideal for use in air conditioned rooms where free circulation is required between the upper ceiling chambers and room areas.

For maximum light diffusion and sound dissipation, the panels are used with Iso-Lyte (non-perforated clear plastic) panels inverted and spaced above the Iso-Sonic panels.

ISO-INDUSTRIES, INC., 1654 Lincoln Blvd., Santa Monica, Calif.

Bradley Announces NEW FOOT-CONTROL MECHANISM

SE-284



The tops in sanitation—up to 10 wash at one time.

Now no lag bolts or other floor fastenings are required. New "Floating Cross" control mechanism, simple and accessible, provides better foot-control.

Plus Vandal-Proof Features

- ① Tamper-proof nuts and coupling nuts lock the tie rod assembly.
- ② Meddling with contents of Soap Dispenser is prevented by locking type Filler Cap.
- ③ Mixing Valves are concealed inside the metal pedestal on Washfountain with supply lines from below the floor.
- ④ Metal pedestal has removable panels—to afford accessibility to valves and fittings—but effectively restrain unnecessary tampering.

**BRADLEY
WASHFOUNTAIN CO.**
2233 W. Michigan St.
Milwaukee 1, Wis.

BRADLEY
Washfountains

Distributed Through Plumbing Wholesalers

Write
for
Catalog
5691



Aluminum Bar Window SE-307

In Simple, Contemporary Design

A new aluminum bar window system offering exceptionally clean lines and simplicity of construction has been developed by the E. K. Geyser Co. It features great economy in first cost and installation, new narrow muntins for neat, trim appearance and flat, unornamented exterior surfaces for modern appearance and easy cleaning. The new design employs the Geyser glazing system which leaves no facing putty exposed.

The new series will be manufactured in any size to meet architectural requirements.

THE E. K. GEYSER CO., 915 McCord Roadway, Pittsburgh 3, Pa.

TEACHING MATERIALS

Jr. Trampoline SE-303 For Children 2-10 Years Old



The Thumper is the name of a new Nissen Trampoline specially designed for the 2 to 10-year-old age group. It has many of the features of the Nissen Regulation Trampolines, including frame of all-welded steel tubing; rubber Trampoline cables; all-Nylon bed; multi-stitched with strong Nylon thread; and rubber-shod legs to prevent floor marring when used inside.

The Thumper is 60" wide, 6' 8" long and stands 24" off the floor. It can be easily folded away for storage.

NISSEN TRAMPOLINE Co., Cedar Rapids, Iowa.

SE-309 Plastic Construction Set Helps Children Develop Dexterity



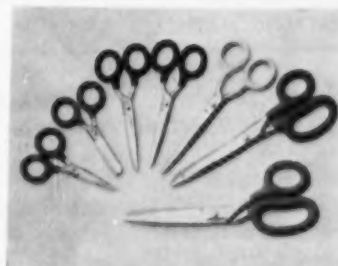
The Link-Kit Construction Set helps teachers keep their pupils' interest while they show the children how to play constructively as a group. These flexible, colorful, safe, non-toxic links can be built into everything from a ball to a boat (and they float, too!). Packed 1,000 Link-Kits in a reusable bag with a discount to schools.

THE DEWL PLASTI-TOY CORP., IN-

STITUTIONAL SALES DIV., East Northport, L. I., N. Y.

Scissors SE-310 With Foam Cushion Grip

A new and unique approach to scissors design features a vinyl foam "cushion" on the handles to provide an amazingly comfortable grip for fingers. In several attractive colors, the specially formulated vinyl coating is color-proof, temperature-proof.



JOHN AHLBIN & SONS, INC., Dept. O, 188 Garden St., Bridgeport, Conn.

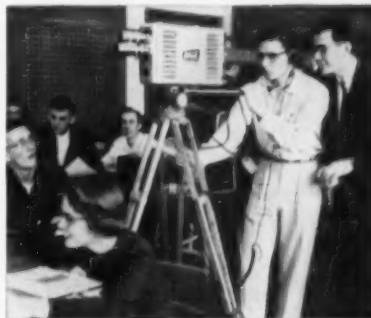
SE-285



U. S. Educators Eye Closed-Circuit Test in a Schenectady High School



Edward Sherley, Mont Pleasant mathematics teacher, teaches two classes at once with the aid of Dage TV.



Student mans Dage TV camera, aided by Michael Ambrosino, the school's TV Co-ordinator. Student training is another aspect of Dage TV system's use in education.



Schenectady's Mont Pleasant High School is using Dage closed-circuit television in a teaching experiment which may cut a pattern for nation-wide use of this newest teaching tool.

Some advantages made possible by Dage, as seen by Principal Francis Morhous:

- One outstanding instructor can teach several separate classes at the same time, thus extending his range of effectiveness.
- Student groups in laboratory classes can get a close-up look at experiments, see more, learn more in less time.
- In the future students may stay in classrooms, view "assembly" speakers on TV screens.

Investigate the opportunities presented by Dage closed-circuit television. For a new dimension in education, get the facts. Write Dept. 12-7 for information.



DAGE TELEVISION DIVISION
MICHIGAN CITY, INDIANA

'A Thompson Product'

IN CANADA: Distributed by Rogers Majestic Electronics, Limited, Toronto
OUTSIDE NORTH AMERICA: Write C. O. Brandes, Inc., 4900 Euclid Avenue, Cleveland, Ohio

TEACHING MATERIALS

Phonograph

SE-311

Features Unusual Turntable

A center drive continuous variable speed turntable is the special feature of the new Califone Celebrity Phonograph. This turntable eliminates the cones, idlers and belts used on the usual variable speed devices. The speeds on the Celebrity range from 16 to 88 rpm, with an illuminated stroboscope for adjusting exactly to all four speeds. Once set, it remains exactly on speed even when cold.



Other new features are an amplifier of 5 watts with an 8" self-container range speaker; a new pickup counter-balanced upward so that it

cannot fall on the records; a turntable of cast aluminum with a cork top etc.

CALIFONE CORP., 1041 N. Sycamore Ave., Hollywood 38, Calif.

Music Stand

SE-312

With Attached Shelf



The Naren Music Stand features a removable shelf which converts it readily into a Director Stand. The shelf slides into position and locks without the use of tools. The height of the unit may be adjusted and locked along the upright rod at any desired position.

Made of heavy gauge steel and finished in either grey hammertone or black wrinkle enamel.

NAREN INDUSTRIES, INC., 2104-06 N. Orchard St., Chicago 14, Ill.

SE-286

there's only one WITH
153 MODELS for every type requirement
NO-COST EXTRAS that others charge for
CRAFTSMANSHIP reflecting

SUNROC'S 25 YEARS EXPERIENCE AS
WATER COOLER SPECIALISTS

Designed to meet the requirements of those who specify water coolers—Built to exceed the requirements of those who use them—SUNROC Coolers incorporate, as standard equipment, these and other extra features...

- DUAL OPERATION combining
 - EXTRA-WIDE FOOT PEDAL and
 - CLOG-PROOF HAND BUBBLER
 - TUBE COOLING METHOD with
 - SEAMLESS COPPER TUBING
 - STAINLESS STEEL BASE
 - ANTI-SIPHON DEVICE
- on water cooled models

MANY SPECIAL DESIGNS FOR
OFFICES • RESTAURANTS • STORES
SCHOOLS • FACTORIES • HOSPITALS



SUNROC CORP.—Glen Riddle, Pa.

Send AIA Water Cooler File to:
(PLEASE PRINT)

NAME.....TITLE.....
COMPANY.....
ADDRESS.....
CITY.....STATE.....

**FOR EASY
SPECIFICATION**

...this AIA File has
specification forms and all
necessary data on proper
cooler selection. Send
NOW for your copy.

SUNROC

water coolers • water coolers • water coolers • water coolers

CORPORATION

GLEN RIDDLE, PA.

Slide Projector

SE-313

Assures Pin-Point Focusing

The new True Automatic 888-D Deluxe 2 x 2 Slide Projector, made by Revere, shows 35mm, Bantam and 1½" x 1½" Transparencies in all type mounts, intermixed. Now the user of Reflex type cameras can crop 120 transparencies for large 1½" x 1½" slide format projection. The 888-D is equipped with an extra condenser lens for use when projecting large 1½" x 1½" slide format.

Popping is practically eliminated and the need for refocusing cardboard mounts is greatly reduced. A fast 5" Wollensak Anastigmat F/3.5 coated lens and a 500-watt lamp assure pin-point focusing and corner illumination of slides.

REVERE CAMERA Co., Chicago, Ill.

TEACHING MATERIALS

Auditorium Projector

For 35mm Filmstrips;
2" x 2" Slides



Model V-1000 C is a powerful auditorium projector which projects brilliant images to large audiences. Cool in operation, this unit handles both single and double frame filmstrips for vertical and horizontal projection and 2 x 2 and bantam slides. A new button device permits only one turn for each whole frame with either single or double frame filmstrip. Annoying light leak has been eliminated completely.

This model is equipped with a 5" F3.5 Professional lens.

VIEWLEX, INC., 35-01 Queens Blvd., Long Island City 1, N. Y.

Relief Map of Europe

Is Coated with Plastic



Aero Service's new 42 x 48" plastic relief map of Europe is rendered in nine brilliant colors which are permanently protected through the application of a plastic coating. This coating permits students to trace geographical boundaries or trade routes

with a soap crayon, then wipe the map clean. Classroom dust, fingerprints, and dirt can also be removed from this lightweight, Vinylite map quickly.

AERO SERVICE CORP., Philadelphia 20, Pa.

Sewing Machine

SE-316

Features Fingertip Control

Singer Sewing Machine's Automatic Swing-Needle Sewing Machine does straight seam sewing, zig-

zag stitching, makes buttonholes, sews on buttons, overcasts, does decorative stitching, all by flicking a tiny lever into place.

The Finger Tip Control makes all this possible. Built-in cams are actuated by finger tip levers on top of the machine. Zigzag stitching, satin stitching, scalloping and other stitches are made possible by lifting a lever. The levers may be used singly, or in combinations of two or more.

SINGER SEWING MACHINE CO., 149 Broadway, New York 6, N. Y.

SE-287

International Seats

...beautiful,
easy to maintain!

In selecting auditorium chairs, whether plywood or fully upholstered, to seat or reseat your school auditorium, you want the most for your community's money.

That is why so many school boards and purchasing executives are specifying INTERNATIONAL auditorium chairs for school and college use. INTERNATIONAL chairs have proved their ability to stand up under teenage wear and tear since 1921.

Write for free bulletins today.

International SEAT

DIVISION OF

UNION CITY BODY CO., INC., Union City, Indiana

CLASSROOM EQUIPMENT

Tubular Furniture SE-317

New Line Durable, Lightweight

A new line of light, durable tubular School Furniture by Columbia has been announced by the Westfield Mfg. Co. Included are open front table desks, lift-lid table desks, basic chairs, tablet arm chairs and combination chair desks.

Of special interest are two open front table desks which feature full-length pencil grooves inside the book



compartment, eliminating the need for desk-top grooves. One is extra-large, with 18" x 28" top dimensions. Desk tops and tablet arms are

available in solid Northern hardwood, laminated plastic or Fibresin. An underseat bookrack provides handy storage space in minimum unit area. The entire line features noiseless rubber-cushioned steel glides.

THE WESTFIELD MFG. CO., SCHOOL FURNITURE DIV., Westfield, Mass.

Textolite Surfacing SE-318 In Two New Contemporary Patterns



General Electric Co.'s Textolite laminated surfacing material is now available in two newly-styled, contemporary patterns, descriptively named Heyday and Crackle. The patterns are available in flexible sheets which make possible many applications in institutional use.

The new patterns are also available in the G-E Monotop sections—which provide counter-top, back splash and curved front-lip in a single piece. Containing no seams, Monotop eliminates crevices, dirt-catching corners and the need for metal moldings.

GENERAL ELECTRIC CO., CHEMICAL & METALLURGICAL DIV., Pittsfield, Mass.



ANOTHER NEW SCHOOL SELECTS
MASTER PROTECTION

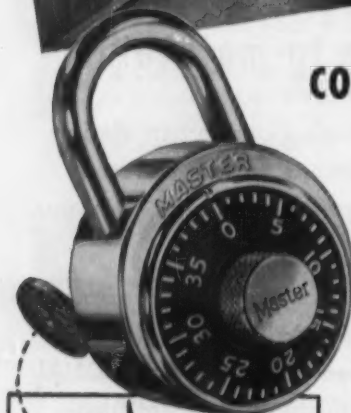
Master

COMBINATION PADLOCKS

- DURABLE
- LOW COST
- STAINLESS STEEL CASE CONSTRUCTION

Low initial cost and long, trouble-free service are just two of the reasons why so many new schools are standardizing on Master Combination Padlocks. See how Master will fit your needs . . . write today for fact-filled brochure giving you the complete story.

Builders of the World Famous
Master Laminated Padlocks



Master No. 1525
Key Controlled
Two Year Guarantee



MASTER NO. 1500
Same design and construction as No. 1525 . . . but without key control.

Master Padlocks

NO. 1 IN AMERICA'S SCHOOLS

Master Lock Company, Milwaukee 45, Wis.
World's Largest Padlock Manufacturers

SE-319 Business Classroom Stands Resist Machine Vibration

The Hercules all-purpose business classroom stands, student typing tables and instructor tables are designed with arch-strut welded tubular steel frames to resist the vibration of typewriters and business machines. U-bar bracing prevents leg wobble and affords generous chair and leg room.

Frames are finished in baked wrinkle enamel. Vibrex tops are non-glare, semi-lustre. They come in matching or contrasting colors of school beige, gray, black or green.

MEILINK STEEL SAFE CO., Toledo, Ohio.

CLASSROOM EQUIPMENT

Drinking Fountain SE-320

In New, Modern Design



A new Halsey Taylor Drinking Fountain, No. 5650, has just been introduced. Modern in design, it blends in nicely with today's streamlined classrooms. It is available with or without glass filler and ideally adapted to the semi-recessed Cuspidor Combination used in gymnasiums, etc.

THE HALSEY W. TAYLOR CO., Warren, Ohio.

Exit Lights SE-321

Recessed, Surface-Type Models



Curtis Exit Lights feature one-piece body-frames of fused steel, finished with a rust-proof, dirt-resisting, neutral tone aluminum bronze. Interior reflecting surfaces are finished with baked white Fluracite enamel for maximum illumination of the sign. Glass bottom panels in all surface-type units provide added illumination over the point of exit in accordance with many local codes. Another feature of the new line of exit lights is the upward opening

door that eliminates all fumbling under re-lamping or maintenance.

CURTIS LIGHTING, INC., 6135 W. 65 St., Chicago 38, Ill.

Shower Head SE-322

Spray Angles are Adjustable

American-Standard has announced a new shower head which harmonizes with the redesigned American-Standard line of brass fittings and is finished in highly-polished Chromard. The face plate may be adjusted to give spray angles of 15 or 30° from the wall.



The head can be made vandal-proof if necessary.

AMERICAN RADIATOR & STANDARD SANITARY CORP., PLUMBING AND HEATING DIV., Pittsburgh 30, Pa.

Folding Tables are NOT all alike!



SMOOTH, SANITARY TOPS of Masonite Presdwood, Linoleum, Fir or Birch Plywood, Formica and Resilyte

TUBULAR STEEL FOLDING LEGS



FOLD UNDER FOR STORAGE

QUICK, EASY SET-UP ★ FOR CHANGING ROOM USES



1, 2, 3, 4 LEVEL BANDSTANDS

"U" shaped set-up for BANDS and ORCHESTRAS allow unobstructed vision of musicians, director and audience. Improve appearance, discipline and director control. Same units set-up in a straight line can be used as stepped-up audience seating risers.



1-LEVEL PLATFORMS, STAGES

For speakers, raised speakers tables, ceremonies, acts, style shows. Quick set-up or removal. Used in Schools, Colleges, Churches, Hotels, Clubs, Lodges. Each unit only 2 1/4" thick when folded. Store in small space.

USE THE SAME UNITS FOR MANY DIFFERENT ARRANGEMENTS

No other tables have as many "Extra Features" as

Mitchell
FOLD-O-LEG
tables

- ★ GREATER SEATING CAPACITY
- ★ MORE LEG COMFORT
- ★ UNEQUALED APPEARANCE, DURABILITY, STRENGTH
- ★ FINEST CONSTRUCTION, MATERIALS, FINISHES
- ★ BUILT FOR LONG SERVICE

The Strongest, Handiest Folding Table Made!

ANY SIZE STAGE IN ANY ROOM OR HALL, ANYTIME



Mitchell PORTABLE
FOLDING STANDS

- ★ Each unit a SAFE stand in itself
- ★ 4'x8'x3/4" Tops, 8" 16" 24" 32" heights
- ★ Strong, rigid TUBULAR STEEL LEGS

Write for Descriptive Folder

MITCHELL MFG. CO.

2726 S. 34th St. • Milwaukee 46, Wis.

MFRS. of MITCHELL FOLD-O-LEG TABLES, BAND AND CHORAL STANDS, SEATING RISERS

MAINTENANCE

Non-Slip Wax

SE-323

Has Germ-Controlling Factor

Demon Sanitizing Wax is a high quality water emulsion wax that dries to a hard brilliant shine and can be rebuffered periodically to renew the gloss. In addition, it inhibits the growth of bacteria from the moment it is applied for the life of the wax.

Occasional damp mopping rejuvenates the germ inhibiting powers and restores lustre to the floor.

This wax can be used safely on all types of flooring materials: sealed wood and concrete, terrazzo, asphalt, rubber and vinyl tile, linoleum, etc. There is no objectionable odor thus eliminating the precautions in handling or applying ordinary disinfectants.

THE PENETONE CO., Box SE-656, Tenafly, N. J.

Pipe Joint Cement

SE-324

Seals Against Leaks

Stay-Tite Pipe Joint provides lubrication as well as a permanent seal against leaks. It effects economies in three ways: it does not harden in the can, eliminating waste; it retains its sealing qualities indefinitely and eliminates costly repeat repairs; and it remains in a plastic state after being applied so that fittings can be easily removed at any time without breakage.

This product is equally effective on high or low pressure piping used for practically any purpose including hot or cold water, steam, air, oil, gasoline and gas.

J. A. SEXAUER MFG. CO., INC., Dept. 4, 2503-03 Third Ave., New York 51, N. Y.

Paint Remover

SE-325

Old Finishes Wash Away



TM-4 Wash Away Paint Remover removes paint, enamel, lacquer, varnish, shellac, resin emulsion, water paints, rubber base paints, synthetic finishes and stains completely from wood, plaster, glass and all metal surfaces.

TM-4 makes all finishes soluble in tap water. Just flow on the product with a brush—wait until the finish softens—then wash off with water. No neutralizing and no after wash is required.

The paint remover is safe and easy to use. It is non-flammable and contains no benzol. In addition, it is a chemically stable, heavy bodied liquid that clings equally well to vertical and overhead surfaces.

It takes from 5 to 30 minutes to loosen most finishes, depending upon the number of coats to be removed and upon the type of finish.

WINFIELD BROOKS CO., INC., Woburn, Mass.



SE-290



MASTERMADE *De Luxe* Movable Desk

The new MASTERMADE *De Luxe* Movable Desk brings you a combination of practical functional design . . . plus rugged structural strength. It has new style . . . new comfort . . . new features that mean years longer service from every desk. It's roomier . . . quieter . . . and fool-proof!

See the new MASTERMADE *De Luxe* Movable Desk today. Get complete details by calling your LOCAL ROWLES SCHOOL EQUIPMENT DEALER

E. W. A. ROWLES COMPANY
ARLINGTON HEIGHTS, ILLINOIS

ROWLES
School Equipment

E. W. A. ROWLES COMPANY ARLINGTON HEIGHTS, ILLINOIS

FOOD SERVICE

Steam Cooker

SE-326

Pans Placed Side by Side



Side-by-side, rather than front-to-back placement of cafeteria pans is an outstanding feature of the new Cleveland Range Steam Cooker. Designed to accommodate two standard 12 x 20" cafeteria pans on each of six steaming shelves, total capacity is 12 pans for a 2-compartment unit.

In addition to standard cafeteria pans, the new steamer readily accommodates standard 12 x 20" containers of 4, 6, or 8" depths and 18 x 26" flat bake trays, making it an ideal unit for quantity portion warming.

Many foods can be cooked in cafeteria pans and placed directly on serving tables without transfer of food to serving trays.

THE CLEVELAND RANGE CO., 3333 Lakeside Ave., Cleveland 14, Ohio.

Dish Truck

SE-327

Made of Stainless Steel



A new truck, primarily for handling up to 55 9½" clean dishes but suitable for many other uses, has been announced by Nutting Truck and Caster Co. The top shelf slants to

center and the dish partitions are properly curved for tip-proof loads. The lower shelf (20¼" x 29½") has a load retaining lip along edges for glass or cup racks, dish trays, linens and miscellaneous items.

The truck is made of stainless steel, and is equipped with 10" or 8" main wheels and 5" or 4" swivel caster wheels with rubber treads for noiseless, easy rolling.

NUTTING TRUCK AND CASTER CO., 1201 W. Division St., Faribault, Minn.

Aluminum Tote Box SE-328

For Transporting, Storing Food

Light in weight and easy to handle, the small-size Wear-Ever Aluminum Tote Box is useful for transporting and storing meats, poultry, fruits, vegetables and other foods. The box has an overall length of 24" and a width outside top of 16½".

Easy to lift, these tote boxes can be securely stacked when filled.

THE ALUMINUM COOKING UTENSIL CO., INC., New Kensington, Pa.

SE-291



4 year survey of seven room school proved this

**CHANGE TO
HAIRPINLINE
COLD CATHODE
SAVED \$257.72
A YEAR.**



Before and after pictures show clearly the improved lighting.



HAIRPINLINE Cold Cathode light fixtures make possible this annual saving of \$257.72 because they use less current than incandescent lamps and last longer. Hairpinline Cold Cathode lamps are GUARANTEED for 3 YEARS! No other light has this guarantee!

Usually incandescent lamps can be replaced by Hairpinline Cold Cathode fixtures without rewiring. This feature is important but so is the fact that your students will enjoy the finest in shadowless, glare free illumination.

Before you buy any new lighting fixtures, get all the facts by writing us.



Send for fact-filled booklets, name and address of our lighting engineer nearest you.



Model UX-480 used in the above room. Other models available.

ILLUMINATING ENGINEERING CO.

2347 E. NINE MILE ROAD, HAZEL PARK, MICHIGAN

Mahogany Gymstands

SE-329

Offer Increased Durability

Rolling gymstands, normally furnished in fir, hemlock or yellow pine, are now available from Wayne Iron Works in red Philippine mahogany.

The close, fine grain and warm color of the mahogany match it to modern gymnasium color schemes. Also being an exceptionally hard, dense wood, it resists splintering and



surface damage, permitting the seating to retain its original usefulness, even after years of hard service.

WAYNE IRON WORKS, 147 N. Pembroke Ave., Wayne, Pa.



HAVE YOU NOTICED
WHAT'S HAPPENING
TO FOOD WARMERS?

I remember the old days when all you saw were water-type food warmers.

Now, every day, more and more of them are being replaced with the efficient waterless, controlled heat type.

I guess the water-type jobs were the best they knew how to make in the old days when they had no way to control the heat but I was mighty glad to see the last of mine. It kept me as hot as the food and steamed up the room, too. In fact, all the

water did was keep my food from burning up because it couldn't get hotter than the boiling point.

A fellow once told me the water keeps the food moist but he couldn't seem to explain how it manages to get into the food.

For my part, I can tell you from experience that it takes individual heat control for each kind of food to best preserve its flavor and reduce shrinkage. That's what the THURMADUKE does and that's why...

YOU'RE YEARS AHEAD WITH A THURMADUKE WATERLESS FOOD WARMER

DUKE MANUFACTURING CO. Dept. S-7
2305 NO. BROADWAY, ST. LOUIS 8, MO.

Please send complete information on
☐ Cafeteria Counters ☐ Food Warmers

NAME _____

ADDRESS _____

CITY AND ZONE _____ STATE _____

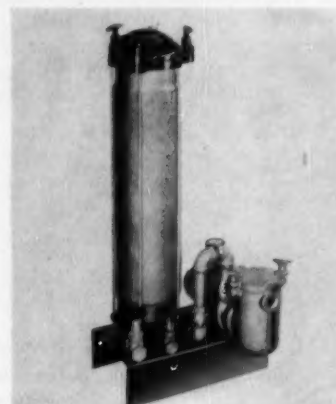


APPROVED BY
A.S.A. U.L. NATIONAL
SANITATION FOUNDATION

Swimming Pool Filter

SE-330

Occupies Very Minimum
Floor Space



The Centri-Mite No. 2304 occupies only two square feet of floor space at its base and, standing just four and one-half feet high, has 10 sq. ft. of 100% filtering area—enough for a 20 x 40 foot pool. Accessibility and general simplicity of cleaning the filter element are other features.

Two other models, the No. 2308 and 2312, incorporating two and three filter elements respectively, proportionately increase filtration capacity to 20 ft. and 30 ft. of 100% filtering area, still maintaining a minimum space for the installation.

SWIMQUIP, INC., 3301 Gilman Rd., El Monte, Calif.

Stadium Seats

SE-331

For Low-Cost Installations

Two new models of stadium seats for low-cost installations in college and high school stadiums and gymnasiums have just been added to the Scott Port-A-Fold, Inc. line.

The HO-35 Holiday Special has a contoured upholstered seat, 10½" deep and 14½" wide, the ideal size for installing on bleachers in that it does not reduce seating capacity or leg room. Side and front corners are rounded for more comfort and the backrest is wider.

The second new model, the HO-36, has the same features and construction, except that it does not have an upholstered seat.

SCOTT PORT-A-FOLD, INC., 712 Middle St., Archbold, Ohio.

OTHER NEW PRODUCTS

Duplicating Ink SE-332 *Takes Offset Stock Without Slip-Sheeting*

Milo Harding Co. has developed an entirely new duplicating ink that is neither oil nor water soluble, yet has all the good qualities of a quick-drying ink. Offset paper can be used on the mimeograph machine without slip-sheeting.

Tempo 7900 is a hard-set ink and is self-cleaning while in a file folder or between papers. More copies can be produced per pound of ink, at the same time delivering more copies per stencil.

MILO HARDING CO., Monterey Park, Calif.

Mist Sprayer SE-333 *Controls Flies, Mosquitoes*



The John Bean Pestaire is designed specifically for spraying campuses, playgrounds, etc. It is available for either pick up truck mounting or as an independent, two-wheel trailer unit. It will deliver 11,000 cubic feet of air per minute at 85 mph velocity. The 21-in. axial-flow belt-driven blower has an operating speed of 3,000 rpm.

To assure maximum breakup of spray particles, the Pestaire sprayer features the Royale pump.

JOHN BEAN DIV., FOOD MACHINERY & CHEMICAL CORP., Lansing 4, Mich.

"Talking" School Bus SE-334 *Sound Amplifier Aids Safety*

The Balding Bus-Kommand is a powerful electronic amplifier with outside and inside speakers and a special microphone. This device enables the bus driver to effectively and instantaneously guide, warn, and control the pupil's actions. With the

Bus-Kommand, the driver is in contact with the pupil even at a distance of 200 yards from the bus and at the same time, by throwing one switch, he can instantly control the pupils in the bus, even those in the rear seats, without moving from his driving position.

BALDING PRODUCTS, INC., ELECTRONICS DIV., 28 Main St., Geneseo, N. Y.

School Buses SE-335 *Feature Longer Wheelbases*

New longer wheelbases on larger-

capacity International Schoolmaster buses and the availability of chrome yellow paint as standard color are changes introduced to meet or exceed recommendations by the NEA.

Wheelbase lengths of International 54, 60, and 66-passenger Schoolmaster chassis were increased 12 to 16" to accommodate 23½, 26, and 28' bus bodies. Front axles of greater capacity are now provided as optional equipment on certain models and increased length steering columns are being supplied.

INTERNATIONAL HARVESTER CO., 180 N. Michigan Ave., Chicago 1, Ill.

SE-293



HIGH SCHOOL GYMNASIUM . . . MAYNARD, MINNESOTA
Architects: Haarstick Lundgren & Associates, Inc. • St. Paul, Minn.

"UNUSUAL . . . ATTRACTIVE . . . LOW COST"

"The unusual attractiveness and efficiency of this Maynard, Minnesota gymnasium is immediately apparent to the spectator. And to those who paid the bill—the low cost is more than gratifying. Compliments have been numerous."

Such is the report from Haarstick Lundgren & Associates, Inc., who were given the challenge of providing an attractive design with low cost. "Important credit," they said, "must be given Rilco Glued Laminated Wood Arches and the prompt cooperation of their representatives in helping us to meet the challenge."

Rilco Arches, Beams, Trusses and Rilco Deck will help you to achieve similar results in schools, churches and commercial buildings whether the design is traditional, modern or purely functional. Rilco engineers will gladly work with you at any time. Just write . . .



RILCO LAMINATED PRODUCTS, INC.
2919 1st National Bank Bldg., Saint Paul 1, Minn.

District Offices:
Wilkes Barre, Pa., Ft. Wayne, Ind., Tacoma, Wash.

AUDIO-VISUAL AIDS

SE-401 New Classroom Films

Among the new classroom films being released by YAF are three 16mm sound films of interest to junior-senior high schools: *Why Study Industrial Arts* is a guidance film designed to help students determine whether they want to enter Industrial Arts courses in high school and colleges; *Joining And Gluing* is a continuation of YAF's Industrial Arts series. This film demonstrates and explains the principles, procedures, and materials for joining and

gluing wood; *Frogs and Toads* is a unique science film dealing with the habitats, life functions, and life cycle of common toads and frogs. It includes many types of scenes not previously photographed in motion picture form. YOUNG AMERICA FILMS, INC., 18 E. 41st St., New York 17, N. Y.

SE-402 New Safety Films

Recognizing the tremendous need for safety films designed for younger children, Walt Disney has now released two such films in 16mm sound, full animation and color. The two subjects deal with bicycle and fire safety and are titled *I'm No Fool*

with a Bicycle and *I'm No Fool with Fire*. Each film runs 8 minutes. Jiminy Cricket, long famed as Pinocchio's conscience, serves as a master of ceremonies and teacher. In both films Jiminy traces the history of his subject and then with rare skill takes up the safety rules which apply. Throughout both films Jiminy sings and dances to the catchy melody of "I'm No Fool," changing the lyrics to fit the problem at hand. Both films are available under the Disney long-term lease plan to all educational film libraries. WALT DISNEY PRODUCTIONS, 16mm Division, Burbank, Calif.

SE-403 New Films Catalog

Coronet Films announces the release of its new 1956-57 catalog of 16mm sound motion pictures for educational use. It is available without charge to schools and other training institutions. The 96-page, four-color catalog describes 668 teaching films, most of which are available in full color as well as black-and-white. They are presented in logical sequence from films for kindergarten and the primary grades through the intermediate grades and high school—including special mention of desirable films for use in teacher-education, other college courses, and for adult education. Film listings include a brief description and the length of each subject, the subject areas and grade levels in which each film may be used most effectively, and identification of the educational collaborator. Sales Dept., CORONET FILMS, Coronet Building, Chicago 1, Ill.

SE-404 Community Filmstrips

Our Neighborhood Helpers, a new series of filmstrips, introduces children in the primary grades to people who serve their neighborhood. The occupations in their community are shown in color photography. They suggest and demonstrate ways in which we can help these workers. This, in turn, helps to develop the concept of the interdependence of people in the community. They build respect and appreciation for those who are important in our own daily lives. Part of the school experience includes actual visits to places and persons of interest. The filmstrips provide additional material for motivation or for review of what is observed. The titles in the series are *The Mailman*, *The Policeman*, *The Fireman*, *The Grocer*, *The Milkman*, and *The Librarian*. THE JAM HANDY ORGANIZATION 2821 E. Grand Blvd., Detroit 11, Mich.

SE-405 Mental Health Films

The National Institute of Mental Health has just released its 1956 supplement to the film guide it released in 1952—*Mental Health Motion Pictures*. The supplement contains 78 films which were not listed in the original guide. The films are listed by categories: *Child And Family*; *Marriage*; *Mental Health And Schools* (for teachers and students); *Mental Health Problems and Miscellaneous* films. U. S. DEPARTMENT OF HEALTH EDUCATION, AND WELFARE, Superintendent of Documents, Government Printing Office, Washington 25, D. C.

SE-294

Strong Folding Tables by HOWE

Howe folding tables are especially designed for comfortable seating and rugged wear. They're light, strong—and practically indestructible. They fold smoothly and compactly—take up minimum space when not in use.



HOWE
Square Leg
Table

All steel chassis. A brace at each leg for extra strength and a leg at each corner for engineering balance. Riveted and welded throughout. Choice of several different tops and sizes.

All steel chassis with retracting leg fold. Strong, fool-proof lock with self-tightening principle. Two separate braces for each pair of legs. Braces are riveted to chassis. Choice of several different tops and sizes.



HOWE
Pedestal Leg
Table



HOWE
Bench and Table
Combination

This revolutionary folding bench and table unit is a wonderful convenience for cafeteria, classroom and many other uses. Converts quickly into a bench with back rest, or a two tier "bleacher." Folds automatically and can be moved with ease. No more lifting or lugging. It literally "floats" along.

Dimensions: Table—36" x 72" x 27" high. Benches—9 1/2" x 72" x 16" high. Folded position 17 1/2" x 72" x 38 1/2" high.

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HOWE FOLDING FURNITURE, INC. ONE PARK AVE. • NEW YORK 16, N.Y.

MANUFACTURERS' CATALOGS

SE-406 Steel Chalkboard

AIA File No. 35-B-1. A two-color folder describes Korok Chalkboard, porcelain-on-steel, for schools and all classrooms. Among the features listed are the following: (1) never needs refinishing; (2) withstands abrasion, wear, shock and dents in normal school use; (3) washes clean with damp cloth; (4) won't shatter or break under impact, stress or temperature changes; (5) easier writing and erasing etc. Included are illustrations of Korok in actual green shade, complete description with specifications, installations and detail drawings. THE ENAMEL PRODUCTS CO., 341 Eddy Rd., Cleveland 8, O.

SE-407 Timers and Switches

General Control Company is now offering a four-page condensed catalog of interest to design engineers concerned with timers and electro-mechanical switches. This bulletin shows pictures, diagrams and general specifications covering this company's line of standard and special foot, lever, limit and push button switches as well as its electronic synchronous-motor timers and custom control panels. GENERAL CONTROL CO., Boston 34, Mass.

SE-408 Lathes

South Bend Lathe Anniversary Catalog. This anniversary brochure tells of the fifty years of progress made by the South Bend Lathe Works. Included is the complete line of the company's lathes along with their construction features and specifications. The book also lists the numerous attachments, parts, and accessories which are available. The back of the catalog includes diagrams illustrating floor space required for South Bend machine tools. Pictures showing every model and part contribute to its content. SOUTH BEND LATHE WORKS, South Bend 22, Ind.

SE-409 Swimming Pools

Modern Swimming Pool Co. offers a free copy of their complete catalog and data book of swimming pool supplies, chemicals and equipment. It is a 52-page book, profusely illustrated, containing data, photographs and prices of every item needed to build a new public pool, or to equip and maintain an existing pool. There is a section on proper pool care and maintenance, and detailed descriptions of approved water-treatment chemicals. Berkite, the newest discovery for the control of algae in swimming pools, lakes and reservoirs, is included in this section. It contains working drawings, descriptions and prices of a complete range of swimming pool equipment, including filter systems, plumbing fittings and pool ladders. There are photographs, detailed descriptions and illustrations of underwater floodlights, pool vacuum cleaners, observation windows, chlorinators, automatic skimmers, diving boards and stands and every other item needed in pool construction and maintenance. MODERN SWIMMING POOL CO., INC., 1 Holland Ave., White Plains, N. Y.

SE-410 Classroom Cabinets

National Multi-Purpose Classroom Units. A handy, quick-reference specification folder on their complete line of Multi-Purpose Classroom Units has been published by National School Furniture Co. The specification file is made up of a standard-size manila file folder containing specifications and data sheets on each of the company's twenty-four units that compose their complete line of classroom cabinets. Multi-Purpose classroom units feature plastic laminate surfaces on both interior and exterior surfaces. These Nevamar plastic surfaces provide a smooth, firm surface, yet they will resist the destructive impulses of kindergarten and lower grade pupils. They require no maintenance, are vermin-proof, immune to acids, ink and paint and can be kept sparkling clean and newlooking with an

occasional wiping with a damp cloth. NATIONAL SCHOOL FURNITURE CO., Public Relations Director, Odenton, Maryland.

SE-411 Classroom Equipment

Catalog 56-CE. This new 2-color, 8-page catalog features a new group of tables and desks offering a tapered leg design to harmonize with the modern educational schoolroom. Units available in this design are: all purpose tables with unobstructed working surfaces, with tote trays or drawer arrangements below the table top; drawing tables; instructors' desks in both single and double pedestal types. Storage units, portable wardrobes, and other auxiliary equipment are also described. METALAB EQUIPMENT CO., Div. of Norbute Corp., 214 Duffy Ave., Hicksville, L. I., N. Y.

SE-295



NOW! Super Quality in FLOOR MACHINES

Super Service® Floor Machine — Fully automatic dual switch with high overload capacity. Short, sturdy handle with unique oval knob makes easy, quick adjustment through 90° arc. Fits all operators and tasks. Self retracting, extra strong, cast aluminum wheel carriage elevates wheels when handle is raised. Oversize, non-marking rubber wheels for easy transportation. All around white vinyl bumper.

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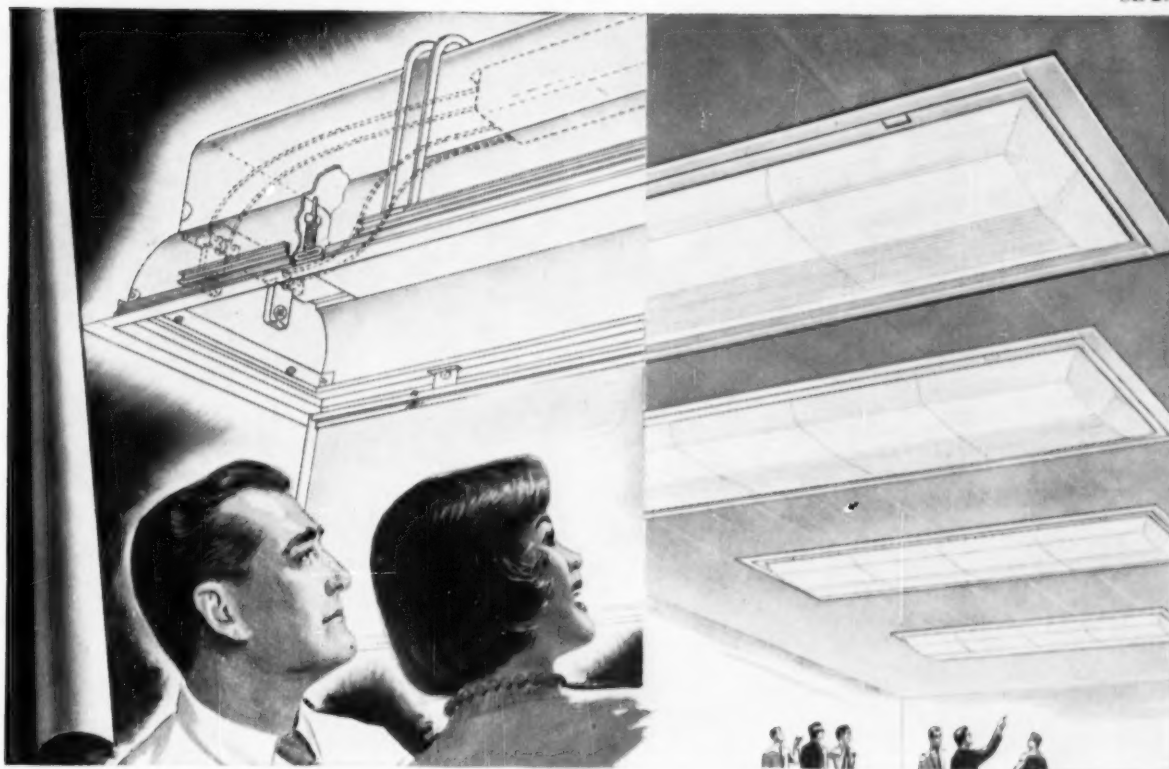
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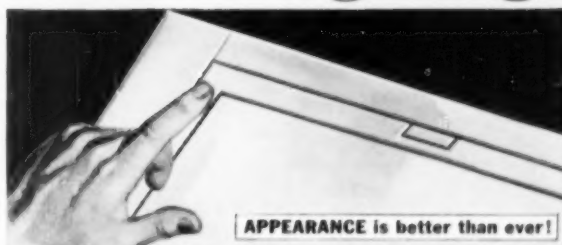
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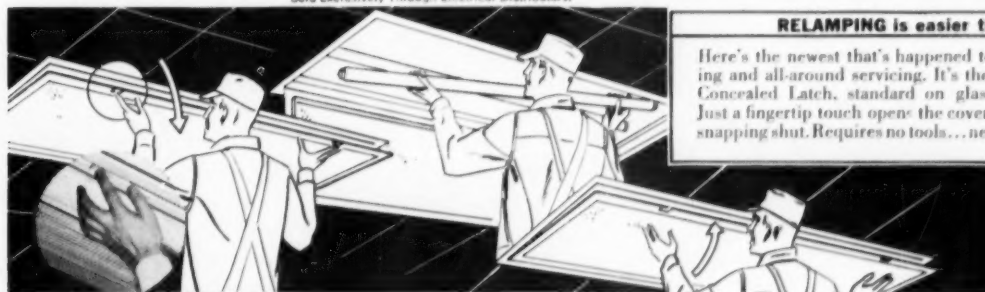
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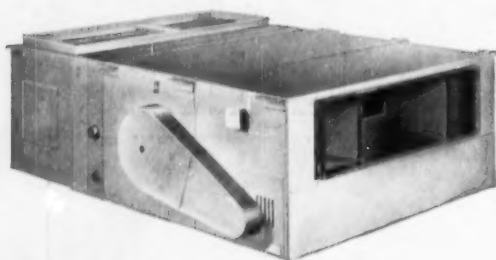


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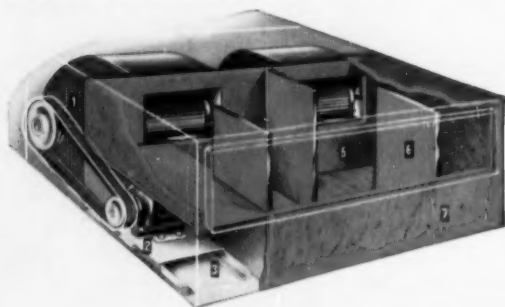
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NOISE

undivided attention

*is sometimes the elimination
of only 10 annoying decibels
of interfering sound*



Nesbitt Thermovents
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horizontal, and inverted mounting



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